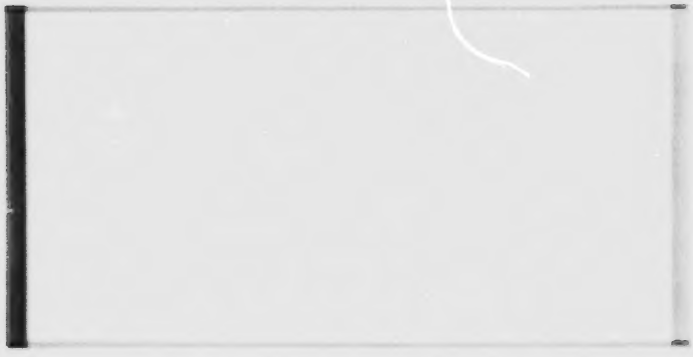
AGRI·FOOD

ECONOMIC & REGIONAL DEVELOPMENT AGREEMENT



Canada

Manitoba

SUMMARY

APPROVED AGRI-FOOD PROJECTS

June 30, 1988

AGRI-FOOD

WHAT IS IT?

The Canada-Manitoba Subsidiary Agreement on Agri-Food Development is a federal-provincial program designed to provide Manitoba agriculture with a coordinated and complementary development strategy, based on thorough sectoral analysis.

The major programs of this Agreement are:

1. Enhanced Agricultural Productivity
2. Enhanced Soil and Water Resource Management
3. Human Resources Development
4. Analysis, Evaluation, Implementation and Public Information

This summary briefly describes approved projects now underway.

MORE INFORMATION

Agri-Food projects and on-farm trials are taking place throughout the agricultural regions of Manitoba. Information on the various projects and/or a copy of the Agri-Food Agreement can be obtained by contacting your local agricultural representative or either of the offices listed below.

Agri-Food is a Subsidiary Agreement of the Canada-Manitoba Economic and Regional Development Agreement (ERDA) which was signed on May 30, 1984.

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PROJECT NAME: Potato Storage and Quality

PROJECT NUMBER: 11101

DURATION: Four (4) years.

FUNDING: $192,000 (F)

LOCATION: Agriculture Canada Research Station - Morden

BACKGROUND:

Attempts to store potatoes in Manitoba for 11 months or longer have resulted in serious quality deterioration and significant economic loss to potato producers and processors. The objective of this project is to develop storage management practises for improving the colour of processed potato products, especially frozen french fries.

TARGET:

1. By 1987, collect information on cultural and environmental factors which influence colour of french fries and chips.
2. By 1988, develop additional information on factors affecting quality - maturity, sprout inhibitors, temperature and humidity, CO_2 levels, etc.
3. By 1988, determine the critical CO_2 levels.
4. By 1989, develop and evaluate microprocessor - infrared radiation technology for controlling CO_2, temperature and humidity in potato storages.

SPONSORING GROUPS:

Agriculture Canada Research Station - Morden
Keystone Vegetable Producers Association
Manitoba Agriculture

CONTACT PERSON:

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PROJECT NAME: Potato Economic Insect Pests

PROJECT NUMBER: 11102

DURATION: Two (2) years

FUNDING: $33,520 (Federal)

LOCATION: Department of Entomology, U of M

BACKGROUND: Populations of potato beetles and flea beetles in Manitoba are large enough to cause some concern to growers and it is important to find out whether control measures should be taken.

TARGET:

1) By the end of 1987, develop information on the extent of damage to potato production that is caused by varying populations of potato beetles, flee beetles and other insect pests.

2) Assess the effectiveness of insecticides for the control of these insect pests.

3) Develop a list of recommendations that will assist potato growers in the assessment of potential insect damage and the available methods for control.

SPONSORING GROUPS:

Manitoba Vegetable Growers' Association
University of Manitoba
Agriculture Canada

CONTACT PERSON:

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Dept. of Entomology
University of Manitoba
Winnipeg, Manitoba
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PROJECT NAME: Potato Bruising Study

PROJECT NUMBER: 11103

DURATION: Three (3) years

FUNDING: 100,000 (Federal)

LOCATION: Food Science and Engineering, U of M

BACKGROUND:

Mechanical injury or bruising of potatoes through the normal harvesting, handling and storage practises of the potato industry has been identified as a significant economic problem for the industry.

TARGET:

1) Review the literature dealing with mechanical bruising of potatoes.

2) Assess testing methods of bruising and the forces involved in bruising.

3) Assess current practises, procedures and equipment used in tuber harvest, storage and transport.

SPONSORING GROUPS:

Vegetable Growers' Association of Manitoba
University of Manitoba
Agriculture Canada Research Station, Morden

CONTACT PERSON:

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Ag. Engineering Study
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PROJECT NAME: Norstar Winter Wheat Breeding

PROJECT NUMBER: 11105

DURATION: Four (4) years

FUNDING: $167,000 (Federal)

LOCATION: Agriculture Canada Research Station, Winnipeg

BACKGROUND:

The lack of adequate disease resistance in the best currently available winter wheat variety NORSTAR, threatens to limit or eliminate production in the disease-prone Eastern Prairies.

TARGET:

1) To have a winter wheat cultivar equivalent to Norstar, but with leaf and stem rust resistance, by 1989.

2) To have advanced breeding lines equivalent to Norstar, but with leaf and stem rust resistance and loose smut resistance, by 1989.

3) To have advanced breeding lines of semi-dwarf winter wheat with the winter hardiness of Norstar and resistance to leaf and stem rust by 1989.

SPONSORING GROUPS:

Agriculture Canada
University of Manitoba
Ducks Unlimited

CONTACT PERSON:

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R3T 2N2

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Dr. Laurie Evans
Plant Science Dept
University of Manitoba
Winnipeg, Manitoba
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PROJECT NAME: Triple-Medium Wheat Development

PROJECT NUMBER: 11106

DURATION: Four (4) years

FUNDING: $428,300 (F)

LOCATION: Agriculture Canada Research Station - Winnipeg

BACKGROUND: Canada's enviable reputation for supplying world markets with high quality wheat was based on our traditional hard red spring wheat. Changing markets have clearly indicated a rising world demand for lower "quality" triple-M wheats (mdium protein, medium hardness, medium gluten strength). Canadian farmers have grown unlicensed, but higher yielding U.S. semi-dwarf, triple-M wheat varieties. The success of the licensed HY320, in production and export market acceptability, has created strong interest in development of better triple-M wheats.

TARGET:

General

This project will initiate the develoment of cultivars of triple-M wheat, with the following characteristics:

- 20 - 30% yield advantage
- earlier maturity
- resistance to diseases and smuts
- semi-dwarf, with strong straw
- kernel distinguishability

Specific

- collect and evaluate breeding material
- initiate a crossing program
- selection and screening
- enter lines in preliminary yield trials

SPONSORING GROUPS:

Research Branch - Agriculture Canada Winnipeg
Pembina Valley Development Corporation

CONTACT PERSON:

Dr. R.I.H. McKenzie
Research Station, Agriculture Canada
195 Dafoe Road
Winnipeg, Manitoba
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PROJECT NAME: Cereal Crops Germplasm Screening

PROJECT NUMBER: 11108

DURATION: Four (4) years

LOCATION: Agriculture Canada Research Station - Winnipeg

BACKGROUND:

The successful production of cereals in Manitoba continues to be threatened by disease. New sources of resistance are required to avoid a serious problem with new, virulent strains which can overcome resistance present in current cultivars. A broad range of genetic variability must be available to the plant breeder.

TARGET:

To establish a facility for storing, cataloguing and evaluating wheat and barley germplasm, in order to make this seed readily available to plant breeders of these two crops.

Specific

- establish a computerized system for storing and accessing data on characteristics of germplasm stocks.
- determine the inheritance of the observed characteristics
- maintain existing germplasms in a viable condition
- continue to add to the number and diversity of germplasm collections.

SPONSORING GROUPS:

Research Branch, Agriculture Canada, Winnipeg
Pembina Valley Development Corporation

CONTACT PERSON:

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Phone: (204) 269-2100

PROJECT NAME: Control of Emerging Problem Weeds in Cereals and Oilseeds

PROJECT NUMBER: 11109

DURATION: Four Years

FUNDING: $224,000 (Federal)

LOCATION: University of Manitoba

BACKGROUND:

Manitoba farmers currently spend about $100 million on herbicides annually. It is estimated that the annual losses due to remaining weeds is $125 million. Where the easy-to-control broadleaf weeds were effectively controlled, a serious shift to a new spectrum of weeds has occurred. Hemp nettle and round-leaf mallow are examples of emerging weed problems, two species where control measures are not always effective. The purpose of this project is to identify those control measures that will be most profitable for Manitoba farmers.

TARGET :

1) Initiate herbicide evaluation trials, involving new experimental chemicals.

2) Based on the results of initial evaluation, establish additional experiments to determine rates and crop tolerance.

3) Continue field scale experiments, as required.

4) Communicate results to the Weeds Section of Manitoba Agriculture, for consideration and for publishing in the Manitoba Weed Control Recommendations.

SPONSORING GROUPS:

Agriculture Canada
University of Manitoba

CONTACT PERSON:

Dr. Ian N. Morrison
Associate Professor,
Department of Plant Science
University of Manitoba
R3T 2N2

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PROJECT NAME: Monitoring and Control of Crop Pests

PROJECT NUMBER: 11112

DURATION: Four (4) years.

LOCATION: Winnipeg

BACKGROUND:

Manitoba farmers require information on if and when to apply recommended control measures to combat insect infestation. Most of the pest problems are sporadic in time and place. Accurate prediction of problems can increase the effectiveness and reduce the cost of control measures.

TARGET:

Develop information on methods of predicting pest abundance and providing recommendation on effective control measures.

Specific

- develop and demonstrate methods of monitoring and predicting pest infestations.
- quantity losses caused by insect pests
- test the efficacy of recommended control measures

SPONSORING GROUPS:

Research Branch, Agriculture Canada, Winnipeg.
Pembina Valley Development Corporation

CONTACT PERSON:

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Winnipeg, Manitoba
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PROJECT NAME: Herbicide Efficiency Using Adjuvants

PROJECT NUMBER: 11115

DURATION: Two (2) years

FUNDING: $83,000 (Federal)

LOCATION: Agriculture Canada Research Station, Brandon

BACKGROUND:

The use of lower amounts of active herbicide ingredients by a farmer in his weed control program could significantly reduce the cost of treatment and reduce the potential harmful environmental effects of the chemical. The objective of this study is to evaluate the use of surfactants, crop oils and inorganic salts for this purpose.

TARGET:

1) Using Poast, Lontrel and Assert on specified crops, establish greenhouse trials to evaluate weed control and crop tolerance to combinations of herbicides and surfactants.

2) Establish field trials using the most promising results obtained in the greenhouse studies.

3) Develop further action plans on the basis of the most promising results.

4) Disseminate information obtained to research, extension and industry personnel.

SPONSORING GROUPS:

Agriculture Canada, Research Station - Brandon
Private Industry

CONTACT PERSON:

Dr. P.N. Chow
Dr. Anne M. Hinshalwood
Ag. Canada Research Station
Brandon, Manitoba
R7A 5Z7

(204) 728-7234

PROJECT NAME: Detecting Stored Crop Insects

PROJECT NUMBER: 11116

DURATION: Two years

FUNDING: $108,000 (Federal)

LOCATION: Agriculture Canada Research Station, Winnipeg

BACKGROUND:

With the recent deregistration and/or registration review of most fumigants used to control insect infestations in stored grain, it had become increasingly important for grain producers to reduce the need for chemical control measures by using good housekeeping methods. Early detection of insects in grain and application of sanitation procedures are important steps to preventing serious infestations of stored grain insects. A newly developed device to detect insects in stored grain has been developed at the Research Station in Winnipeg. This insect trap will be an important feature for the technology transfer part of this project.

TARGET :

1) Select about 100 sites for testing the insect trap in farm granaries.

2) Obtain insect collection data at all sites periodically.

3) Produce extension bulletins and a short video for use by extension specialists and the TV media.

SPONSORING GROUPS:

Agriculture Canada (Research Station-Winnipeg)

CONTACT PERSON:

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Winnipeg, Manitoba
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(204) 269-2100

PROJECT NAME: Yellow Nutsedge Research

PROJECT NUMBER: 11117

DURATION: Three years

FUNDING: $60,900 (Federal)

LOCATION: Red River Valley - Manitoba

BACKGROUND: Yellow nutsedge has surfaced as a new weed problem. It spreads primarily by small tubers, rather than by seeds or spreading roots. All known infestations occur in the Red River valley, which is an indication that the weed may have been carried northward with spring flood waters. There is no information available on its growth habit, reproductive potential, competitiveness or control under Manitoba conditions. This project will initiate action to produce information on the behaviour of the weed in Manitoba and develop possible control measures.

TARGET :

1) Study growth habits of yellow nutsedge where the weed is already established, combined with supplementary investigations in greenhouse and growth room facilities at the University.

2) Conduct experiments involving various herbicides for controlling the weed.

3) Prepare a report on the findings, for use by the Weeds Section of Manitoba Agriculture and extension specialists.

SPONSORING GROUPS:

Agriculture Canada
University of Manitoba

CONTACT PERSON:

Dr. I.N. Morrison,
Associate Professor,
Dept. of Plant Science
University of Manitoba
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(204) 474-6092

PROJECT NAME: Diagnostic Kit for Identification of Cereal Rust Races

PROJECT NUMBER: 11118

DURATION: Two years

FUNDING: $119 150 (Federal)

LOCATION: Winnipeg Research Station

BACKGROUND:

New virulent genes in cereal rusts are not always detected as soon as they arise. This can lead to delays in identification and incorporation of new resistance into breeding programs and could result in significant losses to producers if rust resistant cereals cannot be developed in time, to avoid rust epidemics. Rapid and easy identification of races by sensitive and cheap immunochemical methods could alleviate this constraint.

TARGET:

1) To purify rust proteins that appear to be unique to certain races of wheat stem rust.

2) To produce monoclonal or monospecific antibodies against the above proteins.

3) To establish a diagnostic test for wheat stem rust race identification.

4) To test the developed diagnostic test.

SPONSORING GROUPS:

Agriculture Canada Research Station - Winnipeg
Dept. of Food Science, University of Manitoba
Pembina Valley Development Corporation

CONTACT PERSON:

Dr. R. Rohringer, Research Scientist
Agriculture Canada
Winnipeg Research Station
195 Dafoe Road
Winnipeg, Manitoba
R3T 2M9

(204) 269-2100

PROJECT NAME: Raspberry Yield Trials

PROJECT NUMBER: 11119

DURATION: Two years

FUNDING: $40,000 (Federal)

LOCATION: Agriculture Canada Research Station - Brandon

BACKGROUND:

The majority of Manitoba and Praries raspberry acreage is planted to the cultivar 'Boyne'. This variety was released in 1960 by the Morden Research Station. While Boyne is very hardy and well adapted, researchers are looking for selections that will lend themselves to a U - Pick operation and eventually mechanical harvesting. The market for U - Pick raspberries is considered to be quite substantial. If mechnaical harvesting is successful, the processing industry will expand accordingly.

TARGET:

Evaluate advanced selections of raspberry cultivars to determine overwinter survival and to monitor performance under different growing conditions.

SPONSORING GROUPS:

Agriculture Canada Research Station - Morden
Pembina Valley Development Corporation

CONTACT PERSON:

Dr. C.G. Davidson
Agriculture Canada Research Station
Box 3001
Morden, Manitoba
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PROJECT NAME: Canola Management Demonstration Plots

PROJECT NUMBER: 11201

DURATION: Four (4) years

FUNDING: $290,000 (Federal)

LOCATION: 5 plots in the main canola growing areas.

BACKGROUND:

Canola has become one of Manitoba's most important field crops. Two curshing plants require canola as a raw product. Average yields of canola are often too low to make the crop profitable for the grower, but technology is available to obtain higher yields.

TARGET: General

To visually demonstrate to canola growers in Manitoba that the combination of sound management and proven agronomic practises, adapted to individual farms, will result in higher profit per hectare through increased yields.

Specific

Demonstration of benefits from:

-- using best seed varieties
-- early seeding
-- tillage practises and weed control
-- fertilizer rates recommended for the area/farm

SPONSORING GROUPS:

Manitoba Canola Growers Association

CONTACT PERSON:

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PROJECT NAME: LEAFCUTTER BEE DISEASE CONTROL

PROJECT NUMBER: 11202

DURATION: 3 years TOTAL FUNDING: $117,000 (Prov.)

LOCATION: Interlake area

BACKGROUND: The alfalfa leafcutter bee is used in the pollination of alfalfa for seed production.

Chalkbrood disease, caused by the fungus Ascosphaera aggregata, was first detected in Manitoba leafcutter bee stocks in 1982. Manitoba producers have remained competitive in the alfalfa seed industry by utilizing the leafcutter bee to increase seed production. They also enjoy good export markets for their surplus bee stocks, primarily due to the disease-free status of the bees.

If this disease is allowed to go unchecked and becomes widespread in Manitoba, infection levels may reach 40-60% in 3 - 5 years. These levels of infection have been attained in some of the northwestern states in the U.S. where alfalfa is grown for seed. Producers in these states rely heavily on Canadian leafcutter bees to re-stock their operations.

TARGET: General

To determine both the locations and levels of chalkbrood disease infection in Manitoba leafcutter bee stock and to demonstrate practical techniques for the prevention and control of this disease.

Specific

- Identification of chalkbrood disease levels through producer surveys.
- Demonstrations of sanitation techniques to control chalkbrood disease.
- Development of recommendations for chalkbrood disease control.

SPONSORING GROUPS:

- Manitoba Alfalfa Seed Producers' Association
- Manitoba Agriculture

CONTACT PERSONS:

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Manitoba Alfalfa Seed
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Barry Fingler
Extension Apiarist
Manitoba Agriculture
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Winnipeg, Manitoba
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PROJECT NAME: Disease Free Potato Production

PROJECT NO.: 11203

DURATION: 4.5 years TOTAL FUNDING: $500,000 (Prov.)

LOCATION: South West of Portage la Prairie at Espo Farm

BACKGROUND: Provision of disease tested stock of seed potatoes forms the base for Manitoba seed and commercial processing potato industry. Potatoes are the only mass produced field crop in Manitoba using a vegetative propagation system. This requires intensive and specialized disease control procedures.

TARGET: To continue to operate, in co-operation with the Seed Potato Growers' Association of Manitoba, the seed potato increase facilities at Espo Farm so that

a) supplies of seed material are sufficient to fulfill the demand for commercial varieties.

b) introductions of new and promising cultivars are made on a timely basis as required by the industry.

c) techniques of production, disease identification and monitoring are updated regularly.

SPONSORING GROUP: Seed Potato Growers' Association of Manitoba

CONTACT PERSON:

Association
Allen Funk, President
Box 73, Plum Coulee, MB.
ROG 1RO

Manitoba Agriculture
Garth Stone
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Winnipeg, MB.
R3C OP8

PROJECT NAME: Commercial Potato Production

PROJECT NO.: 11204

DURATION: 4.5 years TOTAL FUNDING: $200,000 (Prov.)

BACKGROUND: Potato production involves a significant value added component to the economy through local processing and export of the processed products into the Canadian and off-shore markets. Maintenance and expansion will require continued effort to maintain and improve the competative position of the local industry.

TARGET: To identify, demonstrate and have adopted techniques of production, storage and management which improve the productive efficiency of potatoes for processing in the area. Particular attention will be paid to specific techniques such as fertilizer use, pest management, soil conservation, crop maturity indicators, storage techniques and other factors that become apparent during the life of the project. This will be accomplished by working directly with and reporting to producers and processors of potato products.

SPONSORING GROUP: Keystone Vegetable Producers' Association Incorporated

CONTACT PERSON:

Association
Eldon McEachern, Pres.
Box 414
Carman, Manitoba
ROG 0J0

Manitoba Agriculture
Garth Stone
908 Norquay Building
Winnipeg, Manitoba
R3C 0P8

PROJECT NAME: Peatland Production Demonstration

PROJECT NUMBER: 11205 [crops] 23218 [soils]

DURATION: 5 years TOTAL FUNDING: $250,000 (Prov.)

LOCATION: Peat soils in the interlake and eastern regions

BACKGROUND: Approximately 200,000 acres of peatland are being farmed in the Province with limited success compared to mineral soils. The main reason for this problem is that crop production and soil management technology related to peatland are presently very limited.

TARGET:

General:

To develop crop and soil technologies which will facilitate crop production on peatlands.

Specific:

The project has two components; crops and soils. The target is the development of:

- fertilizer recommendations for various crops grown on peatlands.
- tillage practices to control erosion and enhance seed bed moisture.
- ag met data base for peat soil.
- crop and variety recommendations for peat soils.
- weed and disease control recommendations peculiar to peatlands.

And the demonstration of:

- economically efficient fertilizer practices.
- production of crops adaptable to the unique climate and soil limitations.
- tillage, weed, and disease control practices specific to peat soils.

SPONSORING GROUPS:

1] The Peatland Farming Association
2] Manitoba Agriculture

CONTACT PERSONS:

J. Ewanek, Manitoba Agriculture, 908 Norquay Bldg., 401 York Avenue, Winnipeg, Manitoba R3C 0P8
Phone: 945-3836

Manitoba Peatland Farming Association
Phone: 268-1411

PROJECT NAME: MANITOBA FORAGE SEED PRODUCTION

PROJECT NUMBER: 11206

DURATION: 5 years **TOTAL FUNDING:** $200,000 'Prov.)

LOCATION: Interlake Region

BACKGROUND:

This project is being conducted by a producer association with the objective of providing forage seed producers with the necessary information to bring farm production in line with potentials shown, possibly through previous research.

A good deal of work has been done in the area of forage seed production in the past by a number of different groups. But much of this has not been demonstrated under Manitoba conditions or has simply not been available to producers. The MFSPA is committed to working with various agencies and groups and will through this project gather, compile and distribute information about appropriate forage seed production practices.

TARGET:

The project will look at the following areas:

(a) Weed Control -- by following up on previous work and developing information based on these trials.
(b) Fertility -- demonstrations and investigations into rates, carriers, and timing.
(c) Plant Physiology & Production Practices -- this area of the project will examine areas such as trash management, burning, stand density and the use of plant growth regulators.

SPONSORING GROUPS: Manitoba Forage Seed Producers' Association

CONTACT PERSONS:

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Joe Petrowski, Manager
Manitoba Forage Seed Producers' Association
c/o Box 2000
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PROJECT LEADER:

Gerald Huebner
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Manitoba Agriculture
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PROJECT NAME: INTENSIVE CROP MANAGEMENT

PROJECT NUMBER: 03-7B-11207-01-01

DURATION: 5 Years **TOTAL FUNDING:** $76,000 (Prov.)

LOCATION: Dauphin, Manitoba

BACKGROUND:

Crop Production requires close attention to details to maximize yields for economic returns. Intensive Crop Management is the paying attention to details in all phases of producing a crop from seeding to harvest to maximize returns.

TARGET: GENERAL

Crop producers in Dauphin area by being a part of the ICM Club, record, analyze and evaluate the inputs and resources required to obtain a yield and most important, determine the economic soundness and returns for any added cropping inputs.

SPECIFIC

Development of:

-crop record keeping system(s)
-analysis of physical crop inputs
-economic analysis of crop inputs
-a forum for discussion of research and area production practices.

DEMONSTRATION OF:

-Factors that affect crop production(e.g. fertility, tillage, etc) by manipulation of inputs and determining the effect by yield monitoring.
-Specific areas of concern by meetings, tours, speakers, etc to address problem areas.
-The benefit of analytical tools available to help predict crop production e.g. soil and tissue testing.

SPONSORING GROUP:

Dauphin Agricultural Society

CONTACT PERSON(S):

Bev Prestayko
Dauphin Ag. Society
Box 459
Dauphin, Manitoba
R7N 2V3

638-7238

Keith Watson
Manitoba Agriculture
27-2nd Ave SW
Dauphin, Manitoba
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PROJECT NAME:

Management of Continuous Crop Systems - South West Region

PROJECT NUMBER:

03-7B-11207-02-01

DURATION:

Four years

TOTAL FUNDING:

$74,900 (Prov.)

LOCATION:

South West Region

BACKGROUND:

A trend is developing towards intensive cropping using fungicides, higher fertilizer rates, high yielding varieties, etc. There is a need to develop and demonstrate crop management including a wide range of factors such as fertility, seeding, weed control, disease control, growth regulators, tramlining, etc.

TARGET:

General - To develop and demonstrate crop management practices that will maximize returns in a continuous cropping system.

Specific - Develop crop management recommendations.
- Demonstrate use of management techniques that will maximize returns including weed control, disease control, fertility, varieties, etc.

SPONSORING GROUPS:

- South West Region Crop Management Association
- Manitoba Agriculture

CONTACT PERSON:

South West Crop Management Association

Ken Young
Box 446
Brandon, Manitoba
R7A 5Z4

or

Jamie McFadden
Box 238
Rivers, Mantioba
R0K 1X0

Manitoba Agriculture
Owen Beever
1129 Queens Avenue
Brandon, Manitoba
R7A 1L9

(Phone: 726-6385)

PROJECT NAME: INTENSIVE CROP MANAGEMENT

PROJECT NUMBER: 11207-03-01

DURATION: four years TOTAL FUNDING: $44,500 (Prov.)

LOCATION: Central Region

BACKGROUND:

There is an increasing awareness of ICM. All the answers on production practises are not known. The project should assist in decision-making and provide some farm scale economic analysis.

TARGET: General

Producers using up to date crop technology and interested in ICM.

Specific

-- Demonstration of ICM practises
-- Development of information package based on results obtained
-- Monitoring of crop growth climate as it relates to ICM decisions

Demonstration of:

-- Crop growth monitoring
-- Fertilizer responses under ICM
-- Decisions on ICM practise implementation
-- Economic analysis of results

SPONSORING GROUPS:

-- Central Region Crops Committee

CONTACT PERSONS:

Brian Manning
Manitoba Agriculture
25 Tupper St. N.
Portage la Prairie, Man.
R1N 3K1
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Brian Andrews
Manitoba Agriculture
Box 667
Carman, Manitoba
ROG OJO
Phone: 745-2005

PROJECT NAME: FERTILIZER PLACEMENT

PROJECT NUMBER: 11207-03-02

DURATION: four years TOTAL FUNDING: $20,300 (Prov.)

LOCATION: Central Region

BACKGROUND:

(a) Discer seeders do not concentrate fertilizer as close to the seed as drill seeders. There is no current guidelines on safe amounts of seed placed fertilizer for discers.

(b) Current research indicates that small amounts of seed placed fertilizer may be beneficial when deep N-P banding is used.

(c) Interest has been expressed in studying safe amounts of seed placed fertilizers under minimum or zero till management.

TARGET:

General

Producers:

-- using discer seeders on clay soils
-- dual deep banding N & P
-- practising minimum or zero till

Specific

Development of:

-- information for guidelines on safe limits of seed placed fertilizer with discer seeding
-- information on the responses to small amounts of seed placed phosphorous with dual deep N-P banding
-- information for guidelines on safe seed placed limits under minimum or zero till management

Demonstration of:

-- varying seed placed fertilizer rates for the three sub projects

SPONSORING GROUPS:

-- Central Region Crops Committee

CONTACT PERSON:

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PROJECT NAME: Eastern Grassland Society Crops Management Demonstrations

PROJECT NUMBER: 11207-04-01

DURATION: 5 years TOTAL FUNDING: $40,000 (Prov.)

LOCATION: Eastern Region

BACKGROUND: In the Eastern Region feed grains account for 42% of the cereal grain production and is required to support the extensive livestock industry. The region is currently a net importer of feed grains and expansion is possible particularily on some lower class soils. Forage seed is also an expanding industry in the region.

TARGET: General - Through the application of technology, increased production of feed grains and forage seeds has potential.

Specific - Demonstrations of:

- feed grain production and management including feed wheats and winter annuals.
- lower cost feed storage systems.
- forage seed production and management

SPONSORING GROUP: Eastern Grassland Society

CONTACT PERSONS:

Les Kurbis, President
Eastern Grassland Society
Box 50
Beausejour, Manitoba
ROE OCO

Fraser Stewart
Manitoba Agriculture
Box 50, 20 First St. S.
Beausejour, Manitoba
ROE OCO

PROJECT NAME: STUARTBURN-PINEY AGRICULTURAL DEVELOPMENT ASSOCIATION (SPADA) CROP PRODUCTION TECHNOLOGY TRANSFER

PROJECT NUMBER: 11207-04-02

DURATION: 4 years **TOTAL FUNDING:** $40,000 (Prov.)

LOCATION: Vita, Manitoba

BACKGROUND: Yields in the Stuartburn-Piney Agricultural Development Association district have been traditionally low.

TARGET:

General

To increase overall net farm income in the Stuartburn-Piney Agricultural Development Association district by

- producing more and better quality feed grains
- growing cash crops suited for the area
- growing forage seed and fall crops on erosion prone land

Specific - Demonstration of:

- feed grain to increase yields to 55 bus. for barley, 75 bus. for oats, plus 30 bus. for feed wheat
- winter cereals such as rye and winter wheat on erosion prone land
- canola management as a special crops alternative
- forage seed production

SPONSORING GROUP: Stuartburn-Piney Agricultural Development Association (SPADA)

CONTACT PERSONS:

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ROA 2KO

Wally Happychuk
Agricultural Representative
Manitoba Agriculture
P.O. Box 10
Vita, Manitoba
ROA 2KO

PROJECT NAME: DISCER FERTILIZER PROJECT

PROJECT NUMBER: 11207-04-03

DURATION: 5 years TOTAL FUNDING: $42,500 (Prov.)

LOCATION: Eastern Region

BACKGROUND: Farmers who operate on clay soils prefer to use discer seeders to seed their crops. At present recommendations for nitrogen (urea) placed with the drill are based on use of a double disc press drill. There is a need to define the limits of seed placed fertilizers with discer seeders.

TARGET: General - To establish a series of plots on cereal crops showing its effect on seedlings and ultimately yields, placing increasing amounts of urea fertilizer using a discer seeder.

Specific - Development of:

- safe upper limits for use of urea type fertilizers with discer seeder.
- an understanding of factors which affect seedling vigor and yield losses due to the use of high levels of urea fertilizer.

Demonstrate:

- the harm done to seedling plants by high rates of urea fertilizer placed close to seed.
- the safe level of urea fertilizer using discer seeders before economic losses are incurred.

SPONSORING GROUP: Agassiz Soil and Crop Improvement Association

CONTACT PERSONS:

Al Nickel, President
Agassiz Soil and Crop
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115 Southwell Road
Winnipeg, Manitoba
R2G 2X4

Phone: 669-0444

Rodney Siemens
Regional Agronomist
Manitoba Agriculture
Eastern Region
Box 760
Steinbach, Manitoba
ROA 2AO

Phone 326-9841

PROJECT NAME: INTENSIVE CROP MANAGEMENT - INTERLAKE REGION

PROJECT NUMBER: 03-7B-11207-05-01

DURATION: four years TOTAL FUNDING: $61,800 (Prov.)

LOCATION: Interlake Region

BACKGROUND:

There is increasing interest in Intensive Crop Management. Information is required to prepare and evaluate such a package under Manitoba conditions.

TARGET: General

To develop an information package on I.C.M. practices and procedures that have an economic benefit to producers.

Specific

- Demonstrate and Investigate more intensive management inputs.
- Demonstrate importance of a total package of management decisions and factors.
- Secure details of costs of production and net returns.

SPONSORING GROUPS:

Manitoba Agriculture - Interlake Region.

CONTACT PERSONS:

Project Manager

Andrew Dickson
Director - Interlake Region
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ARBORG, MB
ROC OAO
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Project Leader

Ed Senkow
Crops Agronomist
Interlake Region
Box 2000
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Telephone: 376-5212

PROJECT NAME: Technology Transfer in Pulse Crops

PROJECT NUMBER: 11209

DURATION: One year

FUNDING: $25,000 (Fed.)

LOCATION: Southern Manitoba

BACKGROUND:

1) Approximately 44,500 ha (110,000 ac.) of field peas are grown annually in Manitoba. A new field pea cultivar has been licensed recently. This is a semi-leafless type in which the leaflets are reduced to tendrils. This cultivar has many agronomic advantages over other commonly grown varieties.

2) There are approximately 4,700 ha (11,515 ac.) of beans grown in Manitoba. There would appear to be room for expansion of bean production, but growers need to know more about varieties and agronomic practices.

TARGET :

1) To establish about 8 TIPU field pea demonstration plots and generate performance data on this new cultivar.

2) To identify cultivars of coloured and white beans with early maturity and high yields, suitable for production in Manitoba.

3) To organize and hold field days at these demonstration plots.

SPONSORING GROUPS:

Manitoba Pulse Growers Association
Agriculture Canada
Manitoba Agriculture

CONTACT PERSON:

John Dean, Secretary
Manitoba Pulse Growers Assoc.,
908 Norquay Bldg.
Winnipeg, Mantitoba
R3C 0V8

(204) 945-3820

PROJECT NAME: Technology Transfer in Pulse Crops

PROJECT NUMBER: 11212

DURATION: One year

FUNDING: $30,000 (Federal)

LOCATION: Southern Manitoba

BACKGROUND:

1) Approximately 44,500 ha (110,000 ac.) of field peas are grown annually in Manitoba. A new field pea cultivar has been licensed recently. This is a semi-leafless type in which the leaflets are reduced to tendrils. This cultivar has many agronomic advantages over other commonly grown varieties.

2) There are approximately 4,700 ha (11,515 ac.) of beans grown in Manitoba. There would appear to be room for expansion of bean production, but growers need to know more about varieties and agronomic practices.

TARGET :

1) To establish about 8 TIPU field pea demonstration plots and generate performance data on this new cultivar.

2) To identify cultivars of coloured and white beans with early maturity and high yields, suitable for production in Manitoba.

3) To organize and hold field days at these demonstration plots.

SPONSORING GROUPS:

Manitoba Pulse Growers Association
Agriculture Canada
Manitoba Agriculture

CONTACT PERSON:

John Dean, Secretary
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908 Norquay Bldg.
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R3C 0V8

(204) 945-3820

PROJECT NAME:

Evaluation Of New Cultivars Of Field, Forage, And Horticultural Crops In Manitoba.

PROJECT NUMBER:

11301, 11302, 12301

DURATION:

Four years.

TOTAL FUNDING: $1,907,000

$1,144,200 (Fed.)
762,800 (Prov.)

LOCATION:

Selected test sites in Manitoba.

BACKGROUND:

Producers of all crops require detailed information on the relative performance of crop varieties as affected by environmental factors in specific areas of the Province.

Potato and vegetable producers and processors also require product end use quality evaluations.

TARGET:

The project is designed to evaluate candidate cultivars of agronomic crops in the following crop areas:

Cereal, Oilseed, and Special Crops

Performance data collected will, in general, include yield, maturity, disease reaction, and other agronomic measurements necessary for the development of annual 'Field Crop Recommendations'. Pertinent environmental and soil measurements will be recorded at all sites.

Forage Crops

Variety testing will be conducted at two sites, with fodder yields and seed yields being determined each year. The agronomic data will be made available for the development of annual 'Field Crop Recommendations'.

Horticulture

Potato and selected vegetable crops for agronomic adaptation, productivity, fresh market and processing end use.

SPONSORING GROUP:

University of Manitoba

CONTACT PERSONS:

L. E. Evans
Department of Plant Science
University of Manitoba — Phone: 474-8222

D. Durksen
Agriculture Development Branch
Agriculture Canada — Phone: 983-8622

G. D. Webster
Soils & Crops Branch
Manitoba Agriculture — Phone: 945-3822

PROJECT NAME: Foreign Cattle Breed Evaluation

PROJECT NUMBER: 12101

DURATION: Three (3) years

FUNDING: $200,000 (F)

LOCATION: Agriculture Canada Research Station, Brandon.

BACKGROUND:

Prior to 1966, the Canadian beef industry was dominated by three long-established British breeds, Angus, Hereford and Shorthorn. The recent importation of new "exotic" breeds has opened up the almost unlimited possibility for various breed crosses. Beef producers could benefit from information on the relative economic ranking of the different crosses and on the response of these crosses to different environmental and management conditions.

TARGET:

To develop technical information bulletins for producer use, based on long term research programs conducted at Brandon, Manyberries and Lacombe.

1) Winter feed requirements for pregnant beef cows in relation to breed cross and environment.

2) Pre-weaning growth of calves in relation to cow milk production and feed requirements during lactation.

3) The relevance of cow condition to her productive potential.

SPONSORING GROUPS:

Research Branch, Agriculture Canada, Brandon.

CONTACT PERSON:

Dr. G.W. Rahnefeld
Brandon Research Station
Agriculture Canada
P.O. Box 610
Brandon, Manitoba
R7A 5Z7

Phone: (204) 728-7234

PROJECT NAME: Raising Pink Veal

PROJECT NUMBER: 12102

DURATION: Three (3) years

FUNDING: $75,000 (Federal)

LOCATION: University of Manitoba

BACKGROUND: Markets for male dairy calves in Manitoba have been unpredictable with calves being destroyed for lack of value. Pink veal production is considered to be one option for producing a marketable and usually higher priced item. Such an undertaking requires specialized feeding and management techniques.

TARGET:

1) Conduct a series of experiments using various feedstuffs in the production of white or pink veal.

2) Develop recommendations for rations to be used in the production of pink veal by Manitoba producers.

SPONSORING GROUPS:

Agriculture Canada Research Station, Brandon
University of Manitoba
Manitoba Light Veal Producers Association

CONTACT PERSON:

Dr. J.R. Ingalls
Animal Science Department
University of Manitoba
Winnipeg, Manitoba

(204) 474-9468

PROJECT NAME: Trace Mineral Research

PROJECT NUMBER: 12103

DURATION: Four (4) years

FUNDING: $327,000 (277,000 Fed., $50,000 Prov.)

LOCATION: University of Manitoba

BACKGROUND: A proper dietary balance of minerals is necessary for weight gain, milk production and reproductive performance of cattle. The trace minerals of importance in Manitoba include copper, zinc, manganese, iron, selenium, cobalt and iodine. Since the metabolic interrelationships among trace minerals can be quite complicated, it is important to establish the effect of deficiencies and/or excesses of minerals in cattle rations.

TARGET: To establish a list of recommendations, based on a number of specific experiments, for mineral supplementation such that cattle producers throughout Manitoba can counteract the metabolic consequences of deficiencies or excesses of mineralsin the diet.

SPONSORING GROUPS:

Agriculture Canada Research Station, Brandon
University of Manitoba
Manitoba Agriculture

CONTACT PERSON:

Dr. R.J. Boila
Dept. of Animal Science
University of Manitoba
Winnipeg, Manitoba
R3T 2N2

(204) 474-9012

PROJECT NAME: VIDO Swine Pneumonia Vaccine

PROJECT NUMBER: 12104

DURATION: Four (4) years

FUNDING: $164,000 (Federal)

LOCATION: Veterinary Infectious Disease Organization (VIDO) Saskatoon

BACKGROUND: The prevalence of Haemophilus pneumonia in swine is on the increase all across Canada. In Manitoba, 52 infected herds were identified. This severe pneumonia results in $10 - $40 million losses annually to Canadian hog producers. This situation led to the establishment of VIDO in 1975. VIDO's objective is to develop and apply new preventive medicine techniques and health care products to farm livestock.

TARGET:

1) To develop a vaccine for H. pneumonia.

2) To test the effectiveness of such a vaccine.

3) Develop and test improved diagnostic techniques for H. pneumonia.

SPONSORING GROUPS:

Agriculture Canada Research Branch, Brandon

CONTACT PERSON:

Dr. Philip Willson
Veterinary Infectious Disease Organization
124 Veterinary Road
Saskatoon, Saskatchewan
S7N 0W0

(306) 966-7465

PROJECT NAME: Honeybee Production Research

PROJECT NUMBER: 12105

DURATION: Three (3) years

FUNDING: $60,000 (Federal)

LOCATION: Various locations in Manitoba

BACKGROUND: Recent expansion in the Manitoba beekeeping industry has led to some very high concentrations of honey bee colonies in several areas of the Province. The "carrying capacity" of various crops under Manitoba conditions is largely unknown. Some beekeepers believe that certain areas have already exceeded the "saturation point" with too many colonies per area of crop and that per colony honey production is declining as a result.

TARGET:

1) Development of recommendations related to the stocking rates of bees for various crops.

2) Through demonstrations and publications, make this information available to Manitoba beekeepers.

SPONSORING GROUPS:

Manitoba Beekeepers' Association
University of Manitoba
Manitoba Agriculture
Agriculture Canada

CONTACT PERSON:

Mr. Roy Durnin, President
Manitoba Beekeepers' Association
R.R. #1
Rapid City, Manitoba
R0K 1W0

(204) 826-2577

PROJECT NAME: Beef Cattle Selection Strategies

PROJECT NUMBER: 12106

DURATION: Three (3) years

FUNDING: $163,000 (Federal)

LOCATION: University of Manitoba

BACKGROUND:

Selection goals for beef cattle producers have not been well defined. Measurement of and selection for maternal traits is a new area of interest for many producers and an area which needs more research. In order to provide recommendations on selection goals to producers, a base of biological information on the various measurable traits of beef cattle is needed.

TARGET:

Two research and/or extension bulletins are planned:

1) Genetic changes in maternal traits of beef cattle selected for increased yearling weight.

2) Economic evaluation of within-herd selection programs to improve maternal and growth traits of beef cattle.

SPONSORING GROUPS:

Agriculture Canada Research Station, Brandon
University of Manitoba

CONTACT PERSON:

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University of Manitoba
Winnipeg, Manitoba
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Brandon Research Station
Agriculture Canada
P.O. Box 610
Brandon, Manitoba
R7A 5Z7

(204) 728-7234

PROJECT NAME: Economic Support for Agri-Food Research

PROJECT NUMBER: 12107

DURATION: Four (4) years

FUNDING: $175,000 (Federal)

LOCATION: Agriculture Canada Research Station, Brandon

BACKGROUND:

Research results must ultimately be interpreted in an economic context before any new technology is adopted. The need is apparent is beef breeding research that evalutes comparative biological performance of various breed combinations. It is evident is swine nutrition and management studies. Crop research programs could benefit from an economic input.

TARGET:

Specific topics on which economic analysis will be undertaken, include:

1) Beef breeding research
2) Soil management
3) Forage management
4) Economics of special crop production
5) Alternative production systems
6) Evaluation of Agri-Food
7) Direct technology transfer

SPONSORING GROUPS:

Agriculture Canada Research Station, Brandon

CONTACT PERSON:

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Director
Agriculture Canada Research Station
Brandon, Manitoba
R7A 5Z7

(204) 728-7234

PROJECT NAME: Feeding Value of Stored Grains

PROJECT NUMBER: 12108

DURATION: Three (3) years

FUNDING: $82,000 (Federal)

LOCATION: University of Manitoba

BACKGROUND: For livestock feed, the value of a grain is principally determined by its nutrient content. The main grains used for livestock feed in Manitoba are barley, oats and rye. Enzyme treatment has produced significant improvements in the feed efficiency for the various grains and this can vary with the class of livestock being fed. More information is required on the effect of enzymes and substrates is another important item for study.

TARGET:

1) Examine the economic feasibility of adding enzymes to poultry feeds.

2) Determine degree of response when barley, oats, and rye are treated with enzymes.

3) Evaluate the <u>in vitro</u> viscocity test for predicting the effect of enzyme treatment.

4) Evaluate the metabolizable energy (ME) and amino acid availability (AAA) of enzyme treated grains.

SPONSORING GROUPS:

Agriculture Canada Research Station, Brandon
University of Manitoba

CONTACT PERSON:

Dr. R.R. Marquardt
Dept. of Animal Science
University of Manitoba
Winnipeg, Manitoba
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(204) 474-8188

PROJECT NAME: Feeding Value of Cereal and Protein Crops

PROJECT NUMBER: 12109

DURATION: Four (4) years

FUNDING: $168,000 (Federal)

LOCATION: University of Manitoba

BACKGROUND: Analyses of feedstuffs for livestock and poultry have been in place in Manitoba for over 20 years and have produced useful information for the feed industry and individual producers. Differences in nutrient content by cultivar and location are believed to exist. Modern technology is now available to compile this information and apply it to formulate annual diets at the producer level, with the use of computer technology.

TARGET:

1) To accumulate data over a period of four years on the nutrient and trace mineral content of feed grains grown in different locations in Manitoba.

2) To conduct feeding trials to measure the availability of major nutrients for livestock and poultry.

3) Develop prediction equations for estimating the feeding value of feedstuffs based on chemical composition.

SPONSORING GROUPS:

Agriculture Canada Research Station, Brandon
University of Manitoba
Manitoba Agriculture

CONTACT PERSON:

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Dr. S.C. Stothers
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PROJECT NAME: Pre-Selection of Station Tested Bulls

PROJECT NUMBER: 12110

DURATION: Four (4) years

FUNDING: $40,500 (Federal)

LOCATION: University of Manitoba

BACKGROUND: The beef bull testing stations in Manitoba have a capacity for testing approximately 1000 beef bulls for growth performance annually. The capacity for growth and maternal productivity are the major traits of economic importance to the beef cattle and cow-calf operator. The impact that the particular mode of selection for maternal productivity will have on genetic change, compared to other ways of selecting for maternal productivity, is not known.

TARGET: To demonstrate to the Manitoba Beef Cattle Performance Association whether the maternal preselection of station tested beef bulls is of economic value to the industry. If it is, then specific procedures to incorporate maternal preselection into the existing testing system will be recommended.

SPONSORING GROUPS:

Agriculture Canada Research Station, Brandon
University of Manitoba
Manitoba Beef Cattle Performance Association

CONTACT PERSON:

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Dept. of Animal Science
University of Manitoba
Winnipeg, Manitoba
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(204) 474-9102

PROJECT NAME: Reed Canary Grass Research

PROJECT NUMBER: 12111

DURATION: Three (3) years

FUNDING: $40,000 (Federal)

LOCATION: University of Manitoba

BACKGROUND: Low productivity of seasonally flooded pastures and hay fields are a problem in many parts of Manitoba. Reed canary grass is a forage that grows well in water saturated soils and is also efficient in utilizing fertilizer nitrogen when soil is saturated. Reed canary grass, however, has high concentrations of alkaloids, which inhibit digestion. Several new cultivars of reed canary grass have been developed with reduced alkaloid content. This study is to determine the success of the reed canary grass breeding program.

TARGET: Determine and compare the feed value and dry matter yield of new varieties of reed canary grass with that of a traditional selection and a timothy grass.

SPONSORING GROUPS:

Agriculture Canada Research Station, Brandon
University of Manitoba

CONTACT PERSON:

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Winnipeg, Manitoba
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PROJECT NAME: Mycotoxin Contaminated Grain Research

PROJECT NUMBER: 12112

DURATION: Two (2) years

FUNDING: $23,000 (Federal)

LOCATION: University of Manitoba

BACKGROUND: Feed grains can contain moulds and mycotoxins that may be harmful to the animals or leave harmful residues in the animal products. High moisture barley samples have been found with potentially toxic levels of certain mycotoxins. This project is expected to generate information that will provide leads, if not specific information, on *in vitro* detoxification systems.

TARGET: To demonstrate that mycotoxin contaminated grain can be detoxified through the use of fungal enzymes or by the addition of certain compounds in the diet.

SPONSORING GROUPS:

Agriculture Canada Research Station, Brandon
University of Manitoba

CONTACT PERSON:

Dr. R.R. Marquardt
Dept. of Animal Science
University of Manitoba
Winnipeg, Manitoba
R3T 2N2

(204) 474-8188

PROJECT NAME: Forage Preservation Research

PROJECT NUMBER: 12113

DURATION: Three (3) years

FUNDING: $152,120 (Federal)

LOCATION: University of Manitoba

BACKGROUND:

Conservation of forage for winter periods of feeding is an essential feature of beef and dairy cattle production in Canada. The objective of any forage preservation method is to conserve digestible nutrients as efficiently as possible. The two major factors contributing to hay quality are plant maturity at the time of cutting and the harvesting and storage losses that occur once the forage stand has been cut. Weather conditions can significantly affect hay quality. This study is to provide information on measures that can be taken to improve hay quality harvested under adverse conditions.

TARGET:

1) Hay preservatives are available to Manitoba hay growers. This project will compare the effectiveness of hay preservatives for hay baled over a range of moisture levels and for two commonly used bale types.

2) Technical information obtained from the project will be made available to Manitoba farmers in the form of extension information bulletins and research publications

SPONSORING GROUPS:

Agriculture Canada Research Station, Brandon
University of Manitoba

CONTACT PERSON:

Dr. K.M. Wittenberg
Dept. of Animal Science
University of Manitoba
Winnipeg, Manitoba
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PROJECT NAME: Biting Fly Research Project

PROJECT NUMBER: 12114

DURATION: Two (2) years

FUNDING: $35,500 (Federal)

LOCATION: Seven Sisters Grassland Project

BACKGROUND: In Manitoba, 32% of the agricultural land is in pasture or unimproved land and livestock production offers the best potential use for this resource. Blood-feeding flies (horse flies) and mosquitoes can cause serious stress to pastured cattle and are frequently considered one of the major limitations to efficient animal performances.

TARGET:

1) To research systems aimed at reducing stress and protecting pastured cattle from biting fly and mosquito attack.

2) To carry out research on the nature and extent of losses so that the economic feasibility of these systems is maintained.

SPONSORING GROUPS:

Eastern Grassland Society
Agriculture Canada Research Station, Brandon
University of Manitoba

CONTACT PERSON:

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Dr. Terry Galloway
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PROJECT NAME: Supplementing Sow Diets

PROJECT NUMBER: 12115

DURATION: Four years

FUNDING: $150,000 (Federal)

LOCATION: Agriculture Canada Research Station, Brandon

BACKGROUND: Manitoba hog producers often encounter post-weaning reproductive problems, especially with gilts that are bred at a younger age. This four-year research project will identify feeding supplements for sows that will help to eliminate production problems and improve reproductive efficiency.

TARGET :

The project will consist of two experiments, with each experiment replicated four times over a period of 4 years. In the final year, two information bulletins and one or two scientific papers will be prepared for publication.

SPONSORING GROUPS:

Agriculture Canada Research Station, Brandon

CONTACT PERSON:

Dr. Raja R. Grandhi
Research Scientist, Swine Nutrition
Agriculture Canada Research Station
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(204) 728-7234

PROJECT NAME: Ethelbert Feedlot Project

PROJECT NUMBER: 03-7B-12201-01-04

DURATION: Four Years **TOTAL FUNDING:** $29,700 (Prov.)

LOCATION: Ethelbert Area

BACKGROUND: There are many cow-calf producers in the area as well as much feed grain. In the past producers have been at the mercy of fall calf prices. With the advent of the Beef Stabilization Plan some producers are trying or contemplating finishing calves. However, many have had feeding problems and problems achieving A1 and A2 grades.

TARGET:

GENERAL: to increase the amount of cattle finished locally.

SPECIFIC: Demonstration of:
- feed testing ration formulation
- economics of establishing a small lot
- feed mixing and processing
- carcass grades and how to judge finish

To Increase:
- the market weight of beef sold in the area from an average of 480 to 900 lbs. averages
- the gross revenue being generated by beef in the area
- the options available to grain producers in the area by creating a local market for feed grains.

SPONSORING GROUP: Ethelbert Cattlemen's Association

CONTACT PERSON: Mary Paziuk
Manitoba Agriculture
Box 266
Ethelbert, Manitoba
ROL 0T0
Phone: 742-3779

PROJECT NAME: Duck Mountain Replacement Heifer Project

PROJECT NUMBER: 03-7B-12201-01-01

DURATION: Five Years **TOTAL FUNDING:** $95,000 (Prov.)

LOCATION: Pasture - Fork River Area
Dry Lot - Roblin Area

BACKGROUND: In the past many producers in the area have been breeding heifers as 2 year olds to calve as 3 year olds. Those calving as 2 year olds have experienced a high percentage of calving problems as well as reduced pregnancy rates as 2 year olds. Most of this is due to insufficient size as yearlings and failure to manage the bred heifers as a separate group. Economic losses have occurred due to lost production and loss of animals.

TARGET:

GENERAL: To demonstrate the management of replacement heifers and 2 year olds with calves for increased productivity and decreased calving costs.

SPECIFIC: Increase:
- yearling weight of heifers
- pregnancy rates of yearlings and 2 year olds
- increase weaning weights per heifer exposed

Demonstration of:
- feeding required for proper growth prior to breeding
- synchronization in breeding
- bull selection for calving ease
- forage varieties for pasture
- rotational grazing

SPONSORING GROUP: Duck Mountain Grassland Society

CONTACT PERSON: Mary Paziuk
Manitoba Agriculture
Box 266
Ethelbert, Manitoba
ROL 0T0
Phone: 742-3779

Project Name: Northwest Swine Breeders Herd Health Demonstration

Project Number: 12201-01-06

Duration: 5 Years **TOTAL FUNDING:** $49,100 (Prov.)

Background: To maintain domestic and export markets for Manitoba pork, it is necessary to be increasingly cost competitive. Increased production efficiency and reduced costs can be achieved by adopting new practices in producing animals with improved health status.

Target: To demonstrate to swine breeders and commercial swine producers that new concepts of herd health, isolation, and minimal disease will be beneficial to them.

To demonstrate to swine producers the labour efficiency of open front facilities where mechanization of feeding, watering and manure removal takes place in a partially open air environment.

To demonstrate on local swine breeders' farms the type of facilities which are conducive to breeding stock sales.

Sponsoring Groups: Northwest Swine Breeders Association

Contact:

Project Leader	**N.W. Swine Breeders**
G. V. Olsen Livestock Specialist Box 370 SWAN RIVER, Manitoba ROL 1ZO	Mr. Lionel Henderson President Box 340 MINITONAS, Manitoba ROL 1GO

PROJECT NAME: LAWRENCE CATTLEMEN CO-OPERATIVE FORAGE IMPROVEMENT PROJECT

PROJECT NUMBER: 12201-01

DURATION: three years **TOTAL FUNDING:** $20,000 (Prov.)

LOCATION: RORKETON AND TOUTES AIDES DISTRICTS

BACKGROUND:

Livestock as main source of income with a large amount of Class IV and V till soils in these districts. Traditionally large dependance on native hays from unimproved lands.

TARGET: **General**

To establish tame forage on Class IV and V soils in the Rorketon - Toutes Aides district

Specific

Development of:

-- within the Lawrence Cattlemen Co-op Ltd. the increase in establishment of tame forage acreage and quality of existing tame forage fields.

Demonstration of:

-- economically viable method of establishing tame forage on Class IV and V till soils and improvement of existing tame forage fields.

SPONSORING GROUP:

-- Lawrence Cattlemen Co-op Ltd.
-- Manitoba Agriculture

CONTACT PERSON:

Rodger Sheldon
Manitoba Agriculture
Box 180
Ste Rose, Man.
ROL ISO
Phone: 447-2116

PROJECT NAME: THE PAS HEIFER REPLACEMENT PROJECT

PROJECT NUMBER: 12201

DURATION: FOUR YEARS TOTAL FUNDING: $91,700 (PROV.)

LOCATION: LOT 9 - PASQUIA SETTLEMENT, THE PAS

BACKGROUND:

Sound management practices are necessary to bring replacement heifers into production at two years of age and have these heifers rebreed and produce calves successfully annually thereafter. The project will demonstrate proper nutrition required to grow animals to sufficient frame size to effect relative ease of calving, will demonstrate the economics of calving earlier and emphasize the need for selection of sound herd sires based on low birth weights and performance records for breeding heifers.

TARGET:

- Improve rations and feeding techniques of replacement heifers in membership herds.
- Increase the percentage of heifers exposed that successfully breed, calf and rebreed.
- Reduce calving difficulties and mortality rate of calves from two year old heifers through sire selection and calf management.

SPONSORING GROUP: PASQUIA GRASSLAND SOCIETY

CONTACT PERSONS: Neil Scott, President,
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Lyle McNichol, Livestock Specialist,
Manitoba Agriculture,
27 - 2nd Avenue Southwest,
DAUPHIN, Manitoba. R7N 3E5

PROJECT NAME: WESTLAKE HEIFER PASTURE & FINISHING PROJECT

PROJECT NUMBER: 12201

DURATION: five years **TOTAL FUNDING:** $100,000 (Prov.)

LOCATION: WESTLAKE AREA

BACKGROUND:

Historically a large % of the heifer calf crop in the Westlake area have been marketed as calves or yearlings. Due to unknown pregnancy status and large quantities for sale these heifers are marketed at substantial price discounts to steers.

TARGET: **General**

To evaluate and compare economics of various heifer management systems.

Specific

Development of:

-- economically practical beef and pasture management systems

Demonstration of:

-- proper procedures in the growing management and finishing of heifers.
-- maximization of forage production from native pasture through the use of a well established and managed complimentary tame pasture

SPONSORING GROUPS:

-- Westlake Pasture Association
-- Manitoba Agriculture

CONTACT PERSON:

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ROL ISO
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PROJECT NAME: Southwest Forage (Production) Improvement Project

PROJECT NUMBER: 03-7B-12201-02-04

DURATION: 4 Years TOTAL FUNDING: $45,000 (Prov.)

LOCATION: Southwest Region

Background

Sound management practises on both native and tame forages can result in increased beef production in good years and can help stabilize the cow herd in years of poor climatic conditions.

Target

Various management practises will be employed to increase forage productivity.

Demonstration will include the use of herbicides, fertilizers and sod-seeding equipment on farmers fields throughout the Region.

Sponsoring Group - Manitoba Department of Agriculture

Contact Person

M. J. Gramiak
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PROJECT NAME - DELEAU FEEDLOT PROJECT

PROJECT NUMBER - 03-7B-12201-02-02

DURATION - 3 years

LOCATION - Deleau

TOTAL FUNDING - $54,000 (Prov.)

BACKGROUND:

Producers in the Deleau area have historically marketed their weanling calves in the fall. Approximately 80% of their calves have been sold to other parts of Canada and the United States. This project is aimed at demonstrating the feeding and management techniques required to run a small feedlot in the area and therefore encourage the feeding of more cattle here in the future.

TARGET:

The specific targets for the cattled fed out in the project is a average daily gain of 3 pounds or better for the entire feeding period; a feed conversion of 7.5 to 1 or better and to have all carcasses grade in the A1A2 category at a weight between 566 to 721 pounds.

SPONSORING GROUPS:

- Oak Lake Grassland Association
- Livestock Producers
- Manitoba Agriculture - Southwest Region

CONTACT PERSON:

Norm Hemstad
Manitoba Agriculture
1129 Queens Avenue
BRANDON, Manitoba
R7A 1L9

Phone: 726-6355

PROJECT NAME - DOUGLAS FEEDLOT PROJECT

PROJECT NUMBER - 03-7B-12201-02-01

DURATION - 3 years

LOCATION - Douglas Bull Test Station

TOTAL FUNDING - $51,000 (Prov.)

BACKGROUND:

The Manitoba Beef Cattle Performance Association has been involved in testing the genetic potential for growth in bulls for over 20 years. Average daily gain in a feedlot is a highly heritiable trait. Therefore steers which have been sired by genetically superior bulls should gain faster and more efficiently in a feedlot.

TARGET:

The specific targets for the cattle fed out in this project is an average daily gain of 3 pounds or better for the entire feeding period; a feed conversion of 7.5 to 1 or better and to have all carcasses grade in the A1A2 category at a weight between 566 and 721 pounds.

SPONSORY GROUPS:

- Manitoba Beef Cattle Performance Association
- Livestock Producers
- Manitoba Agriculture - Southwest Region

CONTACT PERSON:

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PROJECT NAME: Southwest Ammoniation Project

PROJECT NUMBER: 03-7B-12201-02-03

DURATION: 2 Years TOTAL FUNDING: $29,000 (Prov.)

LOCATION: Southwest Region

Background

Considerable Marsh and Coarse Slough Hay is utilized as a source of winter feed for beef cows. Quality, palatability and utilization can be improved considerably at a nominal cost by treating with Anhydrous Ammonia.

Target

Producers involved in the project will weigh their beef cows before they begin feeding the treated roughage and also at the end of the feeding period. Feed consumption will be monitored at each location.

Sponsoring Group - Oak Lake Grassland Society

Contact Person

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1129 Queens Avenue
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Phone: 726-6409

Mr. Bill Bell
President
Deloraine, Manitoba
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HIGH TENSILE SMOOTH WIRE FENCING DEMONSTRATION - SOUTHWEST REGION

This Agri-Food project is for the purpose of demonstrating to livestock producers the advantages of and the materials and construction techniques used in constructing high tensile smooth wire fences as a substitute for the conventional barbed wire fences commonly used for pastures up till now. Studies in Alberta and British Columbia indicate that this new style of fence is generally lower cost, safer, and more durable than barbed wire fences. The lower cost is a result of lower wire price, greater post spacing, and less labor.

It is planned to build two 0.8 km sections of fence each year during the four-year duration of the project. These demonstration fences will be on sites chosen in the primary cattle producing areas in the Southwest Region where they can easily be observed by interested stockmen. In addition photographs and videotapes taken during actual construction will be used to explain construction techniques at farm meetings.

TOTAL FUNDING: $11,400 (Prov.)

CONTACT PERSON: Robert Rae
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R7A 1L9

Phone: 726-6408

CALF RANGE SHELTER DEMONSTRATION - SOUTHWEST REGION

Many cow-calf producers in the Region have quite suitable facilities for wintering their beef cows and newborn calves as long as the soil remains frozen. But many of these facilities are poorly drained so that with the spring thaw the pens quickly turn to mud. Where this is the case, a suitable alternative is to move cows and calves to a grassy hillside where the snow has disappeared and the surface is firm underfoot. At this time of year the cows with their winter hair coats require little protection from the elements, but the small calves need to get out of the wind and the rain. For this purpose portable calf shelters are a suitable and relatively inexpensive way of providing such protection.

This project is to demonstrate the use of these calf shelters and to assess the relative merits of two styles of shelter in construction, ease of moving, and acceptability to the calves. It is proposed to construct one each of these two styles (open end and open side) each year during the four-year duration of the project and move them from farm to farm to provide experience in their use to cooperating producers and demonstration to others. Photographs and videotapes will also be used at farm meetings to further promote the idea.

TOTAL FUNDING: $8,000 (Prov.)

CONTACT PERSON: Robert Rae
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Phone: 726-6408

PROJECT NAME: Virden Beef Seminar

PROJECT NUMBER: 12201-02

DURATION: 3 years **TOTAL FUNDING:** $3,500

LOCATION: Virden

BACKGROUND: Beef production plays a major role in the farm economy of the Virden region. Statistics Canada reports that (as of 1981) 41% of all farms in this area depended on beef production for part or all of their farm income.

The project's intention is to provide a forum with an atmosphere of learning and education to enable beef producers to adopt innovative ideas and beef production techniques into their own operations as a result of the presentations by those actively involved in the beef industry, be they other producers, government personnel, private enterprises, or research personnel.

TARGET:

General:

To provide Virden region beef producers with a forum dealing with production techniques and practical ideas that could be used to improve their own beef operations.

Specific:

One day Beef Seminar in Virden on February 19, 1988. Attendance numbered 40. Topics were presented on Feed Testing and Ration Balancing, Performance Testing, Feeding Bulls, Douglas and Deleau Feedlot Project Updates, and the Management of Calving.

SPONSORING GROUPS: Virden Agricultural Society
Manitoba Agriculture

CONTACT PERSONS:

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Manitoba Agriculture
Box 850
Virden, Manitoba ROM 2CO
Phone: 748-3873

Darrell Elliott
Virden Agricultural Society
Virden, Manitoba ROM 2CO
Phone: 556-2214

Project Name: Benchland Forage Consortium Project

Project Number: 12201-03-01

Duration: Five Years TOTAL FUNDING: $181,500 (Prov.)

Location: Southern portions of the Westlake area to include the R.M.'s of Lakeview and the majority of Westbourne

Background:

Historically this area has suffered from major soil problems including low natural fertility, poor drainage, stoniness, and micronutrient deficiencies. Farmers have relied on unimproved and native grass species for pasture and winter hay supplies. This has resulted in poor forage and livestock production.

Target: General:

To promote economic production practices in forage and livestock management with the producers.

Specific

The project will include the utilization of a grassland site as well as on-farm sites to demonstrate improved management techniques such as:

- introduction of tame species of legumes and grasses
- management systems for increased forage production
- utilization of grazing systems
- demonstrating equipment necessary to improve hay and pasture land
- management systems for livestock handling, breeding, fly control, and feeding

This should result in:

- improved carrying capacity and length of grazing season
- utilizing land resources more efficiently
- improved herd management systems
- increased net returns from forage and livestock production

Sponsoring Group: Benchland Forage Consortium Association

Contact Person:

Dennis Beernaert
Agricultural Representative
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Gladstone, Manitoba
ROJ OTO
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Vaughan Greenslade
Grasslands Specialist
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R1N 3K1
(Phone 857-9711)

Project Name: Alonsa Beef, Forage/Pasture Improvement Project

Project Number: 12201-03-02

Duration: Four Years **Total Funding:** $95,400 (Prov.)

Location: Central Westlake area including the L.G.D. of Alonsa

Background: The area suffers from major soil problems including low natural fertility, poor drainage and severe stone problems. Farmers rely principally on native grass species for hay and pasture. This results in poor forage and livestock production.

Target:

General:

To promote economic production practices of forage and livestock production with the producers.

Specific:

-- To demonstrate technology to improve management practices of forage production

-- To increase quality and quantity of native winter feed

-- To introduce tame forage species

-- To increase carrying capacity and length of grazing season by utilizing grazing systems

-- To improve quality and production of beef herds

-- To reduce unit cost of production

-- To improve herd management for both pasture season and winter feeding period

Sponsoring Group: Alonsa District Forage and Pasture Improvement Association

Contact Person:

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Project Name: Rotational Grazing and Pasture Management on the Farm

Project Number: 12201-03-03

Duration: Three Years **Total Funding:** $45,000 (Prov.)

Location: Pilot Mound Agricultural District

Background: Beef cattle have traditionally been allowed to graze both improved and native pastures under continuous, conventional pasture management. This has resulted in a short grazing season and low stocking rates on these pastures from an inefficient grazing method.

Target:

General:

To demonstrate cost efficient production practices in forage and livestock management by utilizing a rotational grazing system on pasture.

Specific:

-- To introduce tame forage species suited to pasture

-- To demonstrate fencing system necessary for rotational grazing

-- To introduce efficient livestock handling facilities

-- To extend grazing season and carrying capacity by utilizing rotational grazing concepts

-- To introduce livestock management such as A.I. and other breeding and selection programs

Sponsoring Group: Louise Forage Improvement Association

Contact Person:

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ROG 1P0

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Vaughan Greenslade
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Phone: 857-9711

PROJECT NAME: Herd Sire Evaluation Project

PROJECT NUMBER: 03-7B-12201-03-04

DURATION: 3 years TOTAL FUNDING: 15,500

LOCATION: Central Region

BACKGROUND: Higher pregnancy rates achieved through the use of fertile breeding bulls can increase reproductive performance. Beef producers can eliminate sub-fertile and foundered bulls prior to the breeding season through the use and practise of semen evaluation and hoof trimming. It is estimated that less than 10% of beef bulls are semen evaluated in the Central Region.

TARGET: General - Through encouraging the use of semen evaluation and hoof trimming, the productivity and net returns of beef herds in the Central Region will be increased.

Specific - demonstration of improved pregnancy rates, reduced calving interval and increased weaning weights achieved through the use of known fertile bulls, and reduction in the utilization of sub-fertile bulls.

SPONSORING GROUP: Manitoba Agriculture - Central Region

CONTACT PERSON: Gerald Orr
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Portage la Prairie, Manitoba
R1N 3K1
Phone 857-9711 ext. 274

PROJECT NAME: Eastern Grassland Society Forage and Livestock Management Demonstration

PROJECT NUMBER: 12201-04-01

DURATION: 5 years TOTAL FUNDING: $131,400 (Prov.)

LOCATION: Eastern Region

BACKGROUND: Forage is an important crop in the Eastern Region due to the land base of which 42% is suited to this crop and the beef and dairy industry of the region. Dairy for example involves 38% of the provincial milk shippers.

TARGET: General - Through the application of technology increased production of forages and livestock is possible from the resources of the region. Greater adoption of this technology is possible by the use of on-farm demonstrations.

Specific - Demonstrations of:

- pasture production and management particularily on class 4, 5 and 6 land
- forage production and management including harvesting, storage and marketing
- forage and feed grains utilization
- cattle production and management

SPONSORING GROUP: Eastern Grassland Society

CONTACT GROUP:

Les Kurbis, President
Eastern Grassland Society
Box 50
Beausejour, Manitoba
ROE OCO

Fraser Stewart
Manitoba Agriculture
Box 50, 20 First St. S.
Beausejour, Manitoba
ROE OCO

PROJECT NAME: STUARTBURN-PINEY AGRICULTURAL DEVELOPMENT ASSOCIATION (SPADA) LIVESTOCK AND FORAGE TECHNOLOGY TRANSFER

PROJECT NUMBER: 12201-04-01

DURATION: 5 years TOTAL FUNDING: $125,400 (Prov.)

LOCATION: Vita, Manitoba

BACKGROUND: Beef is the major industry in the Stuartburn-Piney Agricultural Development Association (SPADA) district. Opportunity exists to increase management practises of both livestock and forage production.

TARGET:

General -

- to increase the number of calves fed locally to finish.
- to increase average calving rate to 90%; weaning weight to 500 lbs. average, daily gain to 3.0 lbs. and feed efficiency to 8 to 1.
- to increase forage yields to 2.25 T. per acre.

Specific - Demonstration to consist of:

- perennial forage management
- alternative and annual forages
- pasture management
- feedlot feeding trials
- herd health demonstrations

SPONSORING GROUP: Stuartburn-Piney Agricultural Development Association

CONTACT PERSONS:

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Chairman
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P.O. Box 10
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ROA 2KO

Wally Happychuk
Agricultural Representative
Manitoba Agriculture
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PROJECT NAME: FORAGE FERTILITY

PROJECT NUMBER: 12201-04-03

DURATION: 4 years **TOTAL FUNDING:** $10,500 (Prov.)

LOCATION: Eastern Region

BACKGROUND: In the Eastern Region, 42% of the land base is suited to forage production yet only 15% of the forage acreage is fertilized. There is a need to demonstrate the economic benefits of proper forage fertility.

TARGET:

General - By the use of strip fertilizer demonstrations on selected sites, and the use of soil and tissue testing, forage producers would realize the benefits of adopting the technology of forage fertilization.

Specific - Forage fertilizer strip demonstrations to be conducted each year on various forage crops and soil types in the Eastern Region. Approximately 10 demonstrations to be conducted each year.

SPONSORING GROUP: Manitoba Agriculture - Eastern Region

CONTACT PERSON:

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Box 50, 20 First Street S.
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ROE OCO

Phone 268-1411

PROJECT NAME: Pasture Cell Grazing Management

PROJECT NUMBER: 12201-04-04

DURATION: 4 years **TOTAL FUNDING:** $22,000 (Prov.)

LOCATION: Eastern Region

BACKGROUND: Lack of control of grazing animals on pasture is perhaps one of the major constraints to increased pasture productivity. Overgrazing, invasion of lower nutrative forage species and the loss of productive species particularly legumes is the result of uncontrolled grazing.

TARGET: General - The use of a planned grazing system which involves pasture subdivision, specified rest periods and adequate stocking density to utilize and maintain productive forage species will increase pasture productivity.

Specific - Up to 3 projects are planned per year to demonstrate pasture subdivision and grazing management.

SPONSORING GROUP: Manitoba Agriculture

CONTACT PERSON:
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Beausejour, Manitoba
ROE OCO

Phone 268-1411

PROJECT NAME: Semen Evaluation

PROJECT NUMBER: 12201-04-05

DURATION: 3 years **TOTAL FUNDING:** $11,400 (Prov.)

LOCATION: EASTERN REGION

BACKGROUND: Higher pregnancy rates achieved through the use of fertile breeding bulls can increase reproductive performance. Beef producers can eliminate sub-fertile and foundered bulls prior to the breeding season through the use and practise of semen evaluation and hoof trimming. It is estimated that less than 10% of beef bulls are semen evaluated in the Eastern Region.

TARGET: General - Through encouraging the use of semen evaluation and hoof trimming, the productivity of beef herds in the Eastern Region will be increased.

Specific - demonstration of improved pregnancy rates, reduced calving interval and increased weaning weights achieved through the use of fertile bulls, and reduction in the utilization of sub-fertile bulls.

SPONSORING GROUP: Manitoba Agriculture - Eastern Region

CONTACT PERSON:
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PROJECT NAME: High Tension Smooth Wire Fencing Demonstration

PROJECT NUMBER: 12201 - 05 - 01

DURATION: Five years **Total Funding:** $10,000 (Prov.)

LOCATION:

Lundar
Ashern - 1985

Arborg
Teulon - 1986

Fisher Branch
Arborg - 1987

Stonewall 1988.

BACKGROUND:

The cost of fence construction constitutes a significant investment for the financially strapped beef producer. In addition, conventional construction practices and materials do not necessarily produce an efficient, long lasting fence.

TARGET:

General

To demonstrate recommended fence construction techniques and relatively new materials (such as high tension smooth wire) in areas of the Interlake where beef production predominates.

Specific

To construct two demonstration fences per year of the contract. Each fence to be approximately 800 metres (1/2 mile) in length. In addition, the performance and maintenance required of these demonstration fences will be evaluated.

SPONSORING GROUPS:

Manitoba Agriculture

CONTACT PERSON:

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Project Name: Feeding Sows for Optimum Productivity

Project Number: 03-7B12201-05-02

Duration: 3 Years **Total Funding: $7,900 (Prov.)**

Location: Arborg Agricultural Representative District

Background:

With the current cost of constructing conventional total confinement swine facilities, some producers are seeking alternatives to housing swine. There is interest in the loose housing practice, apparently, successfully applied by some producers. The interest in loose housing is due to the lower initial investment.

Limited information is available, under Manitoba conditions, on the comparative performance and costs of housing gestating sows in loose housing facilities versus the conventional total confinement.

Objective:

The project will compare and monitor different feeding systems and their effects on the productivity of gestating sows housed in loose housing outdoor facilities.

Operational Plan:

After sows are bred they will be divided into one of three feeding systems. The feeding systems compared include: 1) cafeteria style 2) skip a day feeding and 3) daily limited feeding (floor feeding).

Information collected on each treatment group would include:

a) feed consumption and feed cost per sow
b) litter size and litter weights
c) sow weights at weaning and prior to farrowing
d) sow condition scoring at weaning and prior to farrowing
e) rebreeding and breeding problems.

The information collected can be used to compare the productivity and cost of loose housing facilities with the productivity and costs of conventional gestation sow housing.

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Arborg, Manitoba
ROC 0A0
Telephone: (204) 376-5212

Project completed Winter 1987/88.

Project Name: INTERLAKE COW-CALF MANAGEMENT PROJECT

Project Number: FILE 03-7B (12201-05)-04

Duration: 5 YEARS **TOTAL FUNDING:** $151,500 (Prov.)

Location: GUNTON TEST SITE

Background: The beef industry has a problem in the area of low herd productivity. Some of the underlying causes that hinder cattle herd performances to their optimum genetic potential are: low reproductive efficiency of cow herds, breeding stock of questionable genetic potential, plus management.

Target:

General — To develop and implement a beef management program to increase herd productivity.

Specific — Development of:

- management program for replacement heifers
- feeding program for early weaned calves
- health program for early weaned calves
- a comparison of an economic analysis of early versus late weaning.

Demonstration of:

- herd health techniques
- pasture management
- cow condition scoring
- feedlot management.

Sponsoring Group: Interlake Livestock and Forage Improvement Association

Contact Persons:

James Bezan
Manager - Gunton Test Station
General Delivery
GUNTON, Manitoba
ROC 1HO
Phone: (204) 467-2527

Ray Salmon
Livestock Specialist
Manitoba Agriculture
P.O. Box 70
TEULON, Manitoba
ROC 3BO
Phone: (204) 886-2696

Project Name: INTERLAKE HEIFER FEEDLOT PROJECT

Project Number: FILE 03-7B (12201-05)-03

Duration: 2 YEARS **TOTAL FUNDING:** $16,700 (Prov.)

Location: GUNTON TEST SITE

Background: Traditionally producers either sell heifer calves off cows and receive usually a 10¢ difference in price compared to selling steer calves or they are placed on grass and sold as long yearlings.

If an alternate market is utilized, such as finishing, the spread in price between steers and heifers may often be reduced to approximately 3¢.

Target:

General — To evaluate the potential of feedlot finishing crossbred heifers.

Specific — Development of:

- management techniques for feedlot heifers
- nutrition and health programs for feedlot heifers

Demonstration of:

- herd health
- performance of crossbred heifers in feedlot

Sponsoring Group: Interlake Livestock and Forage Improvement Association

Contact Persons:

James Bezan
Manager - Gunton Test Station
General Delivery
GUNTON, Manitoba
ROC 1HO
Phone: (204) 467-2527

Ray Salmon
Livestock Specialist
Manitoba Agriculture
P.O. Box 70
TEULON, Manitoba
ROC 3BO
Phone: (204) 886-2696

Project completed Summer 1987.

PROJECT NAME: DISTRICT FORAGE IMPROVEMENT PROJECT

PROJECT NUMBER: 03-7B(12201-05)05

DURATION: FIVE (5) YEARS

LOCATION: INTERLAKE REGION

BACKGROUND:

There is considerable variation in forage crop production by district. Using local demonstration projects, Agricultural Representatives will be able to demonstrate recommended practices to make significant increases in forage production.

TARGET: GENERAL

To establish one forage demonstration project per agricultural representative district in the Interlake Region for a total of 28 sites, demonstrating recommended forage production practices.

SPECIFIC

To demonstrate:

(1) new forage species
(2) fertilizer management
(3) herbicide/pesticide application
(4) establishment techniques
(5) harvesting and storage techniques
(6) pasture management

SPONSORING GROUP:

Manitoba Agriculture, Interlake Region

CONTACT PERSON:

Project Leader
Gerry Breakey
Regional Forage Specialist
Box 260
ASHERN, Manitoba ROC OEO

Project Manager
Andrew Dickson
Regional Director
Box 2000
ARBORG, Manitoba ROC OAO

TOTAL FUNDING: $70,000 (Prov.)

PROJECT NAME: INTERLAKE BEEF PERFORMANCE EXTENSION PROJECT

PROJECT NUMBER: 03-7B(12201-05)06

DURATION: FIVE (5) YEARS

TOTAL FUNDING: $27,500 (PROV.)

LOCATION: INTERLAKE REGION

BACKGROUND:

The use of performance records is somewhat limited. There is a serious lack of awareness of the value of information generated by various demonstration projects and performance testing programs amongst producers and financial institutions. This project will ensure there is a complimentary extension program to such activities as bull testing, ROP, Triple P and other programs in the region.

TARGET:

To make Interlake livestock producers aware of the value of information provided through performance testing programs and activities.

Specifically the project will demonstrate:

(1) the value of performance records

(2) the utilization of performance records

(3) the use of computerized recording systems in a beef enterprise

SPONSORING GROUP:

Manitoba Agriculture

CONTACT PERSON:

Ray Salmon
Livestock Specialist
Box 70
TEULON, Manitoba ROC 3BO
(204) 886-2696

PROJECT NAME: Interlake Beef Management Project

PROJECT NUMBER: 03-7B(12202-05)-07

DURATION: Two (2) years.

FUNDING: $36,830

LOCATION: Interlake Region

BACKGROUND:

Interlake producers market about five to six thousand head annually of off-type cattle. There exists a significant potential for improving net returns by developing a management and marketing system to improve carcus weight and quality.

TARGET:

180 head of off-type steers weighing between 550 and 650 pounds will be supplied by approximately 36 producers in the region each year for two years. 50% of the steers will be placed in the feedlot and fed directly to slaughter weight. The other 50% will be placed on pasture and finished to slaughter weight in the fall. Producers will be informed on a monthly basis of individual and group performance, under the two systems.

SPONSORING GROUPS:

Interlake Livestock and Forage Improvement Association

CONTACT PERSON:

President - Clive Campbell
Interlake Livestock and Forage Improvement Association
Box 67
TEULON, Manitoba ROC 3BO
Telephone: 467-2527 (Gunton Test Station)

PROJECT LEADER:

Ray Salmon
Livestock Specialist
Manitoba Agriculture
Box 70
TEULON, Manitoba ROC 3BO
Telephone: 886-2696

Project completed Summer 1987.

12201 AGRI-FOOD PROJECT
SUMMARY

PROJECT TITLE: Swine Ventilation Report

PROJECT NUMBER: 03-7A(12201-05)-09

DURATION: Three Years (1987-1989)

FUNDING: $4,300

LOCATION: Interlake Region

BACKGROUND:

Ventilation problems are increasingly important in swine facilities, especially in new facilities or remodelled barns, as producers attempt to increase production turnover. Recent developments in inlet design and control technology have made possible significant improvements in ventilation.

TARGET:

Swine producers and staff want to demonstrate this technology on-farm, to show its practical application and to test its reliability under various conditions. The department may need to modify existing design recommendations in the light of actual experience.

SPONSORING GROUP: Manitoba Agriculture

PROJECT LEADER AND CONTACT PERSON:

Brian W. English
Regional Engineer
Manitoba Agriculture
Box 2000
ARBORG, MB ROC 0A0
Phone: 376-5212

12201 AGRI-FOOD PROJECT
SUMMARY

PROJECT TITLE: INWOOD/KOMARNO BEEF MANAGEMENT PROJECT

PROJECT NUMBER: 03-7A(12201-05)-10

DURATION: One Year (1988/89)

FUNDING: Agri-Food - $ 8,950
Producers - $18,876

BACKGROUND:

The Komarno/Inwood area is well-suited to beef cow/calf operations and a number of young farmers are becoming established in the area. About 90% of beef calves are finished elsewhere, though the area has the potential to have more on-farm finishing.

TARGET:

The project will encourage the members of the Inwood and Komarno Beef Clubs to place 2-5 steer calves per producer in the Gunton Station feedlot for a total of 40-50 steers, to be finished and slaughtered in Winnipeg. A variety of extension meetings, reports and tours will be carried out to develop the finishing skills of the young producers.

SPONSORING GROUPS: Interlake Livestock and Forage Improvement Association

CONTACT PERSON: Clive Campbell, President or James Bezan, Manager
Interlake Livestock & Forage Improvement Association
Box 146
GUNTON, MB ROC 1H0
Phone: 467-2527

PROJECT LEADER: Ray Salmon
Regional Livestock Specialist
Box 70
TEULON, MB ROC 3B0
Phone: 886-2696

12201 AGRI-FOOD PROJECT
SUMMARY

PROJECT TITLE: GENETIC IMPACT EVALUATION

FILE NUMBER: 03-7B-12201-08-01

DURATION: January 1, 1986 - December 31, 1990

LOCATION: Manitoba

BACKGROUND:

There are several genetic improvement programs available to beef producers to assist them in increasing herd productivity. These include home test programs, performance test stations for bulls, the Manitoba "PPP" program, and the National Sire Monitoring Program. Several innovative producers have used these programs to achieve more efficient operations.

However, accurate data has not been collected on these farms over successive years to quantitate the benefits these programs can have on Manitoba's beef industry.

By clearly demonstrating the benefits of genetic improvement programs, more producers could be induced to put in the effort needed to enroll and make use of such management tools. Substantial gains in pounds of calf produced per cow and in feedlot efficiency could be realized.

TARGET:

The GIE project will demonstrate the increased productivity which can be achieved on Manitoba beef farms through the use of genetic improvement programs. In cooperation with Manitoba Agriculture, the M.B.C.P.A. will analyse productivity on approximately 40 herds per year. The productivity of these farms will be recorded for the life of the project.

Productivity analysis will be carried out on selected farms which use a variety of genetic improvement programs. Farms not using recognized home, station or progeny testing programs will also be monitored for comparison.

Cooperating producers will receive yearly summaries of the analysis done on their records. Sponsoring agencies and departmental staff will receive compiled summaries of the evaluations broken down by region and by level of participation on improvement programs.

SPONSOR: Manitoba Beef Cattle Performance Association
Box 232
Douglas, Manitoba

CONTACT STAFF:

Marni Donetz
Beef Program Specialist
Animal Industry Branch
Phone: 945-7660

Don Guilford
President, MBCPA
Clearwater, Manitoba
Phone: 873-2430

BUDGET: $86,000.00

12201 AGRI-FOOD PROJECT
SUMMARY

PROJECT TITLE: ASSESSMENT OF DESIGN AND MANAGEMENT OF SWINE SELF-FEEDERS

FILE NUMBER: 03-07-12201-08-02

DURATION: January 1, 1986 - March 31, 1989

LOCATION: Winnipeg area.

BACKGROUND:

Feed utilization accounts for the single largest component of the total production costs of swine finishing units. However, 8 - 30% of the total feed has been estimated to be wasted. Few recommendations have been put forth concerning the necessary design features and operation techniques needed to minimize this problem. Producers are often unaware of the extent of feed wastage as the wasted feed drops directly into the manure disposal system without being observed. Reducing this wastage could increase net producer returns.

TARGET:

This project is designed to demonstrate the effects of proper swine feeder design and management techniques on feed wastage, pig performance and production returns.

Three types of dry self-feeders and one wet self-feeder will be evaluated on a commercial swine finishing unit. Four feeders of each type will be installed. Feeders will be assessed by feed utilization, animal weight gain, and by wastage accumulated in trays under each feeder.

Over a four year period, it is expected that nine batches of pigs (1440 pigs in total) would be fed out using the 16 self-feeders.

A final report with recommendations on feeder design and feeding management will be produced.

SPONSOR: Manitoba Agriculture
Animal Industry Branch

CONTACT STAFF:
Chief, Swine Section
Animal Industry Branch
Phone: 945-7681

BUDGET: $30,000.00

12201 AGRI-FOOD PROJECT
SUMMARY

PROJECT TITLE: MANITOBA SWINE A.I. PROGRAM WITH TECHNICIAN SERVICE

FILE NUMBER: 03-7B-12201-08-09

DURATION: October, 1985 - March 31, 1989

LOCATION: Manitoba, primarily in the Winnipeg area.

BACKGROUND:

Artificial insemination in swine, as demonstrated by many European countries, offers enormous opportunities for improving herd productivity and thus profitabiltiy of Manitoba's hog industry by permitting 1) extensive use of known genetically superior boars; 2) more effective disease control; 3) increased reproductive efficiency; and 4) improved management practices. For the last ten years Manitoba Agriculture has followed an A.I. program by training producers to do their own inseminations. In general, this method has been ineffective.

To gain wide popularity and success, a normal inseminator service, along with a comprehensive training and follow-up service, must be developed prior to implementing a farmer/inseminator program. The Manitoba Swine A.I. Program with Technician Service is a move in that direction.

TARGET:

The Manitoba Swine A.I. Program is designed to demonstrate the increased productivity obtainable through artificial breeding, to increase the acceptance and use of swine A.I., and to evaluate the feasibility of establishing a permanent swine A.I. technician service in Manitoba.

Technician service is available to cooperating producer herds. Producers will have to pay for semen costs, however technician costs will be cost shared in 1987/88 and 1988/89.

Funding is based on 3000 technician inseminations and 500 producer inseminations per year. Producers can enroll for three years and be eligible for 100 technician inseminations and/or 25 producer inseminations per year. To minimize travel costs, technician service will be available mainly to producers within a 75 km radius of Winnipeg.

SPONSOR: Manitoba Hog Producers' Marketing Board
750 Marion St.
Union Stock Yards
Winnipeg, Manitoba
R2J OK4

CONTACT STAFF: Chief, Swine Section
Animal Industry Branch
Phone: 945-7681

BUDGET: $90,000.00

12201 AGRI-FOOD PROJECT
SUMMARY

PROJECT TITLE: MANITOBA BEEF PRODUCTIVITY IMPROVEMENT PROGRAM

FILE NUMBER: 03-7B-12201-08-08

DURATION: January 1, 1986 - December 31, 1990

LOCATION: Three herds per region per year.

BACKGROUND:

One of the more serious problems facing the economic viability of Manitoba's beef industry is low herd productivity. The underlying causes are:

1. Poor reproductive efficiency of the cow herd.
2. Utilization of breeding stock with poor genetic potential.

Manitoba has a calf weaning rate of less than 80%, and average weaning weights of less than 450 lbs. There is much room for improvement on most farms. To make the desired productivity improvement, a comprehensive management system must be followed, assisting the producer in analysing the cost:benefit of management changes.

TARGET:

The M.B.P.I.P. is designed to demonstrate the ability of beef producers to increase herd productivity through indepth productivity analysis and counselling.

Working with a team of agriculture professionals (Agricultural Representative, Livestock Specialist, and local veterinarian) the beef producer will identify his current herd productivity and set short and long term goals for improvements.

Herd productivity will be monitored for the three years each farmer is enrolled on the program through the Federal/Provincial ROP program and Beef Efficiency Analysis. To assist the producer meet his goals, a comprehensive nutrition, reproduction and genetic improvement program will be worked out. Manitoba Agriculture will assist the producer by cost sharing feed analysis, pregnancy testing, bull evaluation, estrus synchronization and semen costs through the PPP program.

Results from cooperating herds will be utilized to demonstrate the increased productivity possible with increased management and technological skills on Manitoba farms.

SPONSOR: Manitoba Agriculture
Animal Industry Branch

CONTACT STAFF: Dr. Bob Richmond
Chief, Beef Section
Animal Industry Branch
Phone: 945-7679

BUDGET: $140,600.00

PROJECT NAME: Evaluation of Round Bale Storage Techniques

PROJECT NUMBER: 12202

DURATION: Two (2) years

FUNDING: Prairie Agriculture Machinery Institute $20,000
Manitoba Agriculture $10,000
Agriculture Canada $18,000

LOCATION: Prairie Agriculture Machinery Institute
Portage la Prairie, Manitoba

BACKGROUND:

About 80% of forages in the prairies are processed in the form of large round bales. Traditionally, round bales have been stored outside and are subject to losses in feed quality. Recently, several storage alternatives have become available for large round bales.

TARGET:

To carry out functional performance evaluation and long term hay quality storage performance of three round bale storage systems and to evaluate the economics of such systems.

SPONSORING GROUPS:

Agriculture Canada
Manitoba Department of Agriculture
Prairie Agriculture Machinery Institute

CONTACT PERSON:

Mitchell Omichinski
P.A.M.I
Box 1060
Portage la Prairie, Manitoba
R1N 3C5

(204) 239-5445

David Campbell
Manitoba Agriculture
9th Floor, Norquay Building
Winnipeg, Manitoba
R3C 0P8

(204) 945-3835

PROJECT NAME: Transportation Study - Processed Crop Products

PROJECT NUMBER: 13102

DURATION: One (1) year

FUNDING: $17,400 (Federal)

LOCATION: Marketing and Economics Branch, Winnipeg

BACKGROUND:

Over the past 20 years, there has been considerable investment in secondary processing facilities in western Canada, particularly for canola products, but also alfalfa pellet plants, special crop facilities and a proposed facility for processing flaxseed. The constraints to marketing of the products fall into four areas:

- physical handling
- transportation
- institutional
- volume/price

TARGET:

1) The proposed study would result in a report for general circulation in the industry, dealing with identification of constraints, options and need for change.

2) The study would be completed and a final report available in the seventh week from authorization to proceed.

SPONSORING GROUPS:

Agriculture Canada

CONTACT PERSON:

Murray Gwyer
Agriculture Development Branch
303 - 275 Portage Avenue
Winnipeg, Manitoba
R3B 2B3

(204) 983-3835

PROJECT NAME: Beef Fingers Development

PROJECT NUMBER: 13201

DURATION: Two (2) years

FUNDING: $150,000 (Federal)

LOCATION: Canadian Food Products Development Centre, Portage la Prairie

BACKGROUND:

Agriculture Canada disappearance statistics shows a per capita decline between 1976 and 1982 of over 21% for beef and an increase of 29% for chicken, due largely to the "chicken fingers". In order to capitalize on this consumer demand, the beef industry is developing a similar project, manufactured from lower cost cuts of beef, using the flaking method to produce restructured beef fingers.

TARGET:

Assess the following:

1) types and cuts of beef most suitable
2) physical parameters of finished products
3) processes for each stage of production
4) additives evaluation
5) composition of coatings
6) methods of preparation
7) microbiological and chemical criteria

SPONSORING GROUPS:

Canadian Food Products Development Centre, Portage la Prairie
Marketing Branch, Manitoba Department of Agriculture, Winnipeg

CONTACT PERSON:

Al Matheson
Agriculture Development Branch
303 - 275 Portage Avenue
Winnipeg, Manitoba
R3B 2B3

(204) 983-3891

PROJECT NAME: Chilled Fresh Pork

PROJECT NUMBER: 13202

DURATION: Two years

FUNDING: $12,000 (Federal)

LOCATION: Agriculture Canada, Winnipeg

BACKGROUND:

The major importers of pork products prefer fresh pork over frozen pork. This is particularly true of the Japanese and U.S. markets. A relatively new technique called "vacuum packaging" is used successfully to preserve the freshness during transportation from the country of origin to the eventual market. This project will identify and evaluate the technical procedures for vacuum packaging fresh chilled Canadian pork products for export.

TARGET :

1) Determine the optimum procedure for rapid chilling of fresh pork

2) Assess microbial growth and product quality during the storage process

3) Evaluate the vacuum packaging technology specific to the fresh chilled process.

SPONSORING GROUPS:

Agriculture Canada
Manitoba Agriculture

CONTACT PERSON:

Al Matheson
Agriculture Development Branch
Agriculture Canada
303 - 275 Portage Avenue
Winnipeg, Manitoba
R3B 2B3

(204) 982-3891

Market Development Officer
Manitoba Agriculture
916 - 401 York Avenue
Winnipeg, Manitoba
R3C 0P8

(204) 945-4493

PROJECT NAME: Flavour Volatiles Produced by Different Varieties of Whole Flax Seeds and Baked Products

PROJECT NUMBER: 13204

DURATION: One (1) year

FUNDING: Federal $7,500

LOCATION: University of Manitoba

BACKGROUND:

There is increasing interest in the potential use of flax seed in confectionary and baking. Some use has been reported in Germany but none is known in Canada. This study will attempt to establish differences in the flavour of several flax varieties.

TARGET:

To estabish differences in flavour between three varieties of flax and identify the best variety for use in bread baking. The varieties are Norlin, McGregor, and Norman.

SPONSORING GROUPS:

The Flax Council of Canada
University of Manitoba
Agriculture Canada

CONTACT PERSON:

S.C. Baker, Executive Director
The Flax Council of Canada
305 - 433 Main Street
Winnipeg, Manitoba
R3B 1B3

(204) 947-1287

PROJECT NAME: Potato Pathogen Detection Laboratory

PROJECT NUMBER: 13301

DURATION: Five (5) years

FUNDING: $250,000 (Federal)

LOCATION: Winnipeg

BACKGROUND:

The availability of an ample supply of reasonably priced and locally produced seed protatoes is an essential component of Manitoba's expanding seed industry. The annual occurence of potato diseases seriously threatens Manitoba seed potato production. Additional laboratory support is required to supplement existing disease control programs.

TARGET:

- provide laboratory support to established potato disease programs
- establish grower confidence in seed potatoes certified in Manitoba
- monitor the yearly progress of disease control in seed potatoes produced in Manitoba

SPONSORING GROUPS:

Food Production and Inspection Branch,
Agriculture Canada

CONTACT PERSON:

W.D. Lidgett
F.P. & I., Agriculture Canada
624 - 269 Main Street
Winnipeg, Manitoba
R3C 1B2

(204) 983-3775

PROJECT NAME: Electronic Livestock Identification

PROJECT NUMBER: 13402

DURATION: Two (2) years

FUNDING: $200,000 (Federal)

LOCATION: Winnipeg

BACKGROUND:

Rail grading of beef has approached 80% of Manitoba's total beef kill. External tattoos and the ear tag are the most prevalent forms of carcass identification. A more reliable and expedient form of identification is currently available but needs to be tested and demonstrated in order to gain producer confidence.

TARGET:

1) Electronic identification device testing and final selection.

2) Integration of the field identification mode with the slaughter facility identification mode.

3) Full system trial from farm gate to grading color.

4) Post trial evaluation and final report.

SPONSORING GROUPS:

Food Production and Inspection Branch
Agriculture Canada, Winnipeg
Manitoba Beef Commission, Winnipeg

CONTACT PERSON:

Mr. J.R. Kidd
F.P. & I., Agriculture Canada
603 Federal Building
Winnipeg, Manitoba
R3C 1B2

(204) 983-2212

PROJECT NAME: Manitoba Goose Breeding - Pembina Packers

PROJECT NUMBER: 13403 - 01

DURATION: Three years

FUNDING: $52,233 (Federal)

LOCATION: Morden, Manitoba

BACKGROUND:

Manitoba is the largest goose producing area in North America. While the greatest percentage of Canada's goose production is consumed domestically, substantial volumes are exported annually. The goose industry must become more efficient by using improved management practises and from the development of a more efficient breed of geese. Goose breeding is considered to be 20-25 years behind the chicken and turkey industries.

TARGET:

1) Establish a goose breeding regime which will produce improved efficiency in the production of heavy and broiler geese.

2) Specific targets of the breeding program are:

- to produce birds maturing at 16-20 weeks
- broiler geese maturing at 9 weeks
- lower carcass fat content
- improved feather quality

SPONSORING GROUPS:

Agriculture Canada, FP & I
Pembina Packers - Morden

CONTACT PERSON:

Dr. A.C. Van der Meulen
Veterinary Inspection Directorate
613 Federal Building
269 Main Street
Winnipeg, Manitoba
R3C 1B2

(204) 983-4766

Jake Zacharias
Pembina Poultry Packers Ltd
P.O. Box 658
Morden, Manitoba
R0G 1J0

(204) 822-4451

PROJECT NAME: Manitoba Goose Breeding - Northern Goose

PROJECT NUMBER: 13403 - 02

DURATION: Three years

FUNDING: $52,233 (Federal)

LOCATION: Teulon, Manitoba

BACKGROUND:

Manitoba is the largest goose producing area in North America. While the greatest percentage of Canada's goose production is consumed domestically, substantial volumes are exported annually. The goose industry must become more efficient by using improved management practises and from the development of a more efficient breed of geese. Goose breeding is considered to be 20-25 years behind the chicken and turkey industries.

TARGET:

1) Establish a goose breeding regime which will produce improved efficiency in the production of heavy and broiler geese.

2) Specific targets of the breeding program are:

- to produce birds maturing at 16-20 weeks
- broiler geese maturing at 9 weeks
- lower carcass fat content
- improved feather quality

SPONSORING GROUPS:

Agriculture Canada, FP & I
Northern Goose Processors Ltd. - Teulon

CONTACT PERSON:

Dr. A.C. Van der Meulen
Veterinary Inspection Directorate
613 Federal Building
269 Main Street
Winnipeg, Manitoba
R3C 1B2

(204) 983-9866

Emil Egert
Northern Goose Processors Ltd
Box 510
Teulon Manitoba
R0C 3B0

(204) 886-2552

PROJECT NAME: Improved Storage for Horticultural Crops

PROJECT NUMBER: 13404

DURATION: One year

FUNDING: $150,000 (Federal) $100,000 (Prov.)

LOCATION: University of Manitoba

BACKGROUND: The horticultural industry in Manitoba has experienced significant growth in the past few years. At the same time, there have occurred serious storage problems, which resulted in deterioration of quality, often spoilage and rendering the commodities unfit for human consumption. The project will consist of a new storage facility, equipped for environmental control, to be used for research and demonstration on matters of urgent concern to Manitoba's horticultural industry.

TARGET :

1) Construct and equip the vegetable storage research facility by March 1987.

2) Initiate research and demonstration projects, beginning in the summer of 1987, on the recommendation of an Advisory Committee.

SPONSORING GROUPS:

Agriculture Canada
Manitoba Agriculture
University of Manitoba
Manitoba Horticultural Association

CONTACT PERSON:

Dr. M.K. Pritchard
Associate Professor
Horticulture - Vegetable Crops
Department of Plant Science
University of Manitoba
R3T 2N2

(204) 474-6096

PROJECT NAME: Vegetable Marketing Software

PROJECT NUMBER: 13405

DURATION: One (1) year

FUNDING: $50,000 (F)

LOCATION: Winnipeg

BACKGROUND:

The Manitoba Vegetable Producers' Marketing Board is presently using a manual system to process nearly all aspects of its operation. A computer is being installed which will have the capability of handling much of the office operation. A customized software package needs to be developed for the handling of information relating to availability of produce and market flow.

TARGET:

To develop customized software for the Board's new office computer. It will be designed to supply faster and more accurate information on quotas, prices, supplies, customer orders, deliveries, budgeting, etc.

SPONSORING GROUPS:

Manitoba Vegetable Producers' Marketing Board, Winnipeg

CONTACT PERSON:

Mr. Ken McLean,
General Manager
The Manitoba Vegetable Producers' Marketing Board
1200 King Edward Street
Winnipeg, Manitoba
R3H 0R5

(204) 633-7926

PROJECT NAME: Audio-Visual Library

PROJECT NUMBER: 13406

DURATION: Four (4) years

FUNDING: $30,000 (Federal)

LOCATION: Agriculture Canada, Winnipeg

BACKGROUND:

A good audio-visual presentation is one of the most effective means of communication. A pre-requisite is to have available superior quality slides and negatives that can be used to develop promotional material and slide presentations. Past experience has clearly indicated the need for establishing an audio-visual library that will provide a source of material on a wide range of subjects.

TARGET:

1) Produce and catalogue visuals on beef, dairy cattle and purebred swine.

2) Produce and catalogue visuals on special horticultural crops.

3) Produce and catalogue visuals on food products, agriculture technology.

4) Coordinate all of the above into a library where the material is categorized and catalogued, for quick identification.

SPONSORING GROUPS:

Agriculture Canada

CONTACT PERSON:

Al Matheson
Agriculture Development Branch
303 - 275 Portage Avenue
Winnipeg, Manitoba
R3B 2B3

(204) 983-3891

PROJECT NAME: Manitoba Potato Market Development

PROJECT NUMBER: 13407

DURATION: One (1) year (1985)

FUNDING: $5,000 (Federal)

LOCATION: Winnipeg, Manitoba

BACKGROUND:

Manitoba potato growers have experienced some difficulty in capturing the more profitable market for early (new) potatoes. The industry has attempted to correct this problem through promotional efforts and more attractive packaging.

TARGET:

The Vegetable Producers' Marketing Board will conduct a promotional campaign to convince the trade to give priority to pre-packaged Manitoba new potatoes over imports.

SPONSORING GROUPS:

Manitoba Vegetable Producers' Marketing Board
Agriculture Canada

CONTACT PERSON:

Murray Gwyer
Agriculture Development Branch
303 - 275 Portage Avenue
Winnipeg, Manitoba
R3B 2B3

(204) 983-3835

PROJECT NAME: Market Development Implementation

PROJECT NUMBER: 13408

DURATION: Five (5) years

FUNDING: $315,000 (Federal)

LOCATION: Winnipeg

BACKGROUND:

Manitoba crop and livestock producers are heavily dependent on export markets for their products. In today's highly competitive market, it is important to seek out new and expanding markets. In many cases this would involve market studies in order to identify the opportunities and constraints that exist. It may be necessary to provide technical expertise and services to assist certain industries in an export program.

TARGET:

1) Provide technical expertise and services to assist in the development of markets from Manitoba Agricultural products.

2) provide support to specific market development projects, such as:

- Peruvian Dairy Project
- Hay and Forage Marketing Issues
- Swine and Breeding Stock Mission
- Jerusalem Artichoke - Fesibility Study
- Bee Maid Honey Distribution
- Vegetable Handling Study
- Manitoba Pulse Growers' Promotion
- Veal Marketing Study

SPONSORING GROUPS:

Agriculture Canada

CONTACT PERSON:

Murray Gwyer
Agriculture Development Branch
303 - 275 Portage Avenue
Winnipeg, Manitoba
R3B 2B3

(204) 983-3835

PROJECT NAME: Grains, Pulses and Seeds Kit

PROJECT NUMBER: 13410

DURATION: Project completed

TOTAL FUNDING: $ 4,500 (Prov.)
$18,200 (supplementary funding other agencies)

LOCATION: Winnipeg

BACKGROUND: A need was identified to acquaint international buyers with the wide range of grains, oilseeds, special crops and forage crops available from Manitoba. Seed samples from 60 crops grown in Manitoba were collected and assembled into a presentation kit.

A total of 540 kits were produced along with 1,500 copies of a booklet outlining crop uses.

Distribution included Canadian Embassies and Consulates world wide.

SPONSORING GROUPS: Manitoba Agriculture
Manitoba Industry, Trade and Technology
Canadian Grain Commission
Manitoba Grain Industry

CONTACT PERSON: R. J. Ward
Marketing Branch
Manitoba Agriculture
916-401 York Ave.
Winnipeg, Manitoba
R3C OP8

Phone: 945-4491

PROJECT NAME: The Promotion and Development of Conservation Districts in Manitoba

PROJECT NUMBER: 21101

DURATION: 5 years TOTAL FUNDING: $1,000,000 (Provincial)

LOCATION: Agro-Manitoba

BACKGROUND:

In 1976 the Province passed the Manitoba Conservation Districts Act which would provide a focus and a mechanism by which to direct attention to the importance of the need for a comprehensive approach to the management of soil, water and related resources. More recently, the Province established the Manitoba Conservation Districts Authority. The mandate of this agency is to promote and encourage the formation of conservation districts and to assist the districts in planning and implementing resource management plans. The Act stipulates that a newly-established conservation district is required to develop and implement a resource management plan within two years of it being established.

It is the agency's intent to use the planning expertise of government agencies and technical expertise of consulting services to meet this end.

TARGET:

To promote the development of conservation districts in Manitoba through the acquisition of consulting services to provide technical assistance and expertise.

To assist:
a) in the establishment of new conservation districts
b) in the preparation of resource management plans and programs
c) the Authority and conservation Districts in the conduct of research and special studies as required for soil and water conservation practices in Agro-Manitoba

Special:
a) establish 5 new conservation districts by 1990
b) prepare management plans for the 5 existing conservation districts within a 12-month period

SPONSORING GROUP:

Manitoba Conservation Districts Authority, Winnipeg

CONTACT PERSON:

Dr. I. W. Dickson, Executive Director
Conservation Districts Authority
711-330 Graham Avenue
Winnipeg, Manitoba
R3C 4A5

Telephone: (204)945-4948

PROJECT NAME: Soil Management Research

PROJECT NUMBER: 22101

DURATION: Four (4) years

FUNDING: $394,170 (Federal)

LOCATION: University of Manitoba - in various locations in the Province.

BACKGROUND: Soil Erosion has been identified by a "Task Group" on Soil and Water Resources Management as an important ingredient to maintaining a sustainable, arable agriculture. We have no reliable information that can quantify the amount of erosion that has taken place and is taking place or what effect this erosion has on agricultural productivity.

TARGET:

1) The project is designed to obtain information on the rate of soil erosion and its effect on crop yeilds and soil chemical and physical properties.

2) The information developed will be used by Manitoba Agriculture in promoting soil conservation programs in the province.

SPONSORING GROUPS:

Agriculture Canada Research Station, Brandon
University of Manitoba

CONTACT PERSON:

Dr. Carl Shaykewich
Dept. of Soil Science
University of Manitoba
Winnipeg, Manitoba
R3T 2N2

(204) 474-6054

PROJECT NAME: Sandy Soil Management Research

PROJECT NUMBER: 22103

DURATION: Four (4) years

FUNDING: $405,830 (Federal)

LOCATION: University of Manitoba - various locations in the province.

BACKGROUND:

Sandy soils form a significant portion of Manitoba's land resource. These soils are particularly suceptible to wind and water erosion. A related problem is that of organic matter loss. The objective of this project is to study methods of soil management is order to sustain and enhance arable agriculture on sandy soils.

TARGET:

1) Initiate studies on nutrient requirements of wheat at two major study sites.

2) Initiate studies on erosion and organic matter loss.

3) Conduct field tours of major study sites as appropriate.

SPONSORING GROUPS:

Agriculture Canada Research Station - Brandon
University of Manitoba

CONTACT PERSON:

Dr. G.J. Racz,
Head,
Dept. of Soil Science
University of Manitoba
Winnipeg, Manitoba
R3T 2N2

(204) 474-6036

PROJECT NAME: Organic Soils Research

PROJECT NUMBER: 22201

DURATION: 3.5 years **TOTAL FUNDING:** $100,000 (Prov.)

BACKGROUND:

1] Organic soils contain large amounts of organic nitrogen which become available over time for crop production. However, during the early part of the growing season when soils are cold, the release of organic nitrogen is slow.

2] Copper is an extremely limiting factor to crop production on organic soils in other areas such as Europe and USA. Investigations have shown copper to also be very limiting in Manitoba peat soils.

TARGET:

General:

To develop fertilizer recommendations which support economic crop production on peat soils.

Specific:

Development of
- nitrogen recommendations for cereals and canola.
- copper recommendations for crop production; this would include the residual effect of a single application.

Demonstration of
- show producers that the organic nitrogen associated with peat soils can be an economic resource.
- increased yields and economic returns through efficient use of nitrogen and copper fertilizer.

SPONSORING GROUPS:

1] The Manitoba Peatland Farming Association
2] Manitoba Agriculture

CONTACT PERSONS:

J. Ewanek
Manitoba Agriculture
915 Norquay Building
401 York Avenue
Winnipeg, Manitoba
R3C 0P8 Phone: 945-3836

Manitoba Peatland Farming Association
Box 50
20 First Street S.
Beausejour, Manitoba
ROE 0C0 Phone: 268-1411

PROJECT NAME: Optimizing Cereal Production

PROJECT NUMBER: 22202

DURATION: Four (4) years

FUNDING: $727,000 (F)

LOCATION: Agriculture Canada Research Station - Brandon

BACKGROUND:

Soil management, fertilizer use and crop type and cultivar selection are agronomic practises that a producer can change to optimize yield and economic return, within the limitations imposed by climate, soil conditions, and the physiological growth potential of a crop. The objective of this project is to develop information that will allow Manitoba producers of wheat, barley, canola and flax to improve yields and profitability in growing these crops.

TARGET:

1) Site selection and evaluation in 1985.

2) 1986 - first cropping year at each site.

3) 1987 - second cropping year.

4) 1988 - final cropping year. Develop statistical analysis of data and publish technical information papers.

SPONSORING GROUPS:

Agriculture Canada Research Station - Brandon

Western Fertilizer and Chemical Dealers Association

CONTACT PERSON:

Dr. L.D. Bailey
Head, Plant-Soil Research Section
Agriculture Canada, Research Station
Box 610
Brandon, Manitoba
R7A 5Z7

(204) 728-7234

PROJECT NAME: Manitoba Escarpment Alluvial Deposit Study

PROJECT NUMBER: 23103

DURATION: One (1) year

FUNDING: $25,000 (Federal)

LOCATION: Pembina, Riding, Duck and Porcupine Mountain areas.

BACKGROUND:

The Manitoba Escarpment is situated at the base of the Western Upland formed by the Porcupine Mountain, Duck Mountain, Riding Mountain, and Pembina Hills. The regions are composed of highly erodible alluvial deposits. As a result of very steep slopes, streams which cross the escarpment are characterized by rapid and concentraed run-off from both rainfall and snowmelt. High flows and flow velocities cause the removal and transport of large quantities of shale streambed material. The bulk of this eroded material is deposited in the form of alluvial fans, of which there are between 50 and 60, at the base of the Escarpment.

TARGET:

1) To identify the geomorphologic and hydraulic characteristics of all these fans along the entire Manitoba escarpment to determine the usefulness of and the benefits from the construction of energy dissipation weirs.

2) To prepare a water management brochure for use by Municipal and Watershed Managers in developing water management works.

SPONSORING GROUPS:

Agriculture Canada - PFRA
Agriculture Canada - Agriculture Development Branch
Turtle River Conservation District

CONTACT PERSON:

Floyd Wilson
Senior Soil Conservationist (Manitoba)
Agriculture Canada (PFRA)
401 - 1 Wesley Avenue
Winnipeg, Manitoba
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(204) 983-3116

Al Matheson
Agriculture Canada
303 - 275 Portage Ave.
Winnipeg, Manitoba
R3B 2B3

(204) 983-3891

PROJECT NAME: Land Degradation Study

PROJECT NUMBER: 23104

DURATION: Three years.

FUNDING: $304,600 (Federal)

LOCATION: University of Manitoba

BACKGROUND:

The two major land degradation processes in Manitoba are salinization and erosion by water and wind. Estimates of the nature and extent of land degradation in the province vary widely. This project is designed to develop and test a data management system, flexible enough to accommodate both improved soils data and improved potential degradation models, as they become available.

TARGET :

1) Complete a computer systems analysis to establish the necessary parameters for the information delivery system.

2) Build, test and evaluate portions of the resource information system.

3) Complete the development of the resource information system and write a final report.

SPONSORING GROUPS:

Agriculture Canada (Research Branch)
University of Manitoba
Manitoba Agriculture

CONTACT PERSON:

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Canada-Manitoba Soil Survey Unit
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Winnipeg, Manitoba
R3T 2N2

(204) 474-6119

Dr. G. Racz
Head,
Department of Soil Science
Room 362, Ellis Bldg.
University of Manitoba
Winnipeg, Manitoba
R3T 2N2

(204) 474-6036

PROJECT NAME: Soil Conservation Services

PROJECT NUMBER: 23200

DURATION: Five (5) years

FUNDING: $2,215,000 (Federal)

LOCATION: Province of Manitoba

BACKGROUND:

In recent years, concerns have increased about the declining quality and continuing fragility of the Manitoba agricultural land resource base. Improved resource management practises must be developed to ensure the long-run sustainability of the agricultural sector. The eventual benefit is expected to result in a stimulation of economic performance of Manitoba agriculture. This Agri-Food project will provide technical expertise and necessary equipment to assist soil conservation groups and individual farmers to implement various soil conservation techniques.

TARGET:

Year 1 - develop contribution guidelines, employ technical staff and promote soil conservation projects.

Year 2 - major soil degradation issues identified and action plans developed with the Province and Soil Conservation Associations.

Year 3 - In cooperation with the Canada-Manitoba Soil Survey, establish benchmark sites to evaluate trends in soil degradation.

SPONSORING GROUPS:

Agriculture Canada - PFRA
Manitoba Agriculture
Soil Conservation Districts

CONTACT PERSON:

Floyd Wilson
Senior Soil Conservationist (Manitoba)
Agriculture Canada - PFRA
401 - 1 Wesley Avenue
Winnipeg, Manitoba
R3C 4C6

(204) 983-3120

PROJECT NAME: Deerwood Soil and Water Management

PROJECT NUMBER: 23201

DURATION: 5 years (1985-90) TOTAL FUNDING: $239,000 (Fed.)
$120,000 (Prov.)

LOCATION: Escarpment Area -- Deerwood, Manitoba

BACKGROUND:

Historically the escarpment area, head waters of the Tobacco Creek soil erosion, plus run-off in spring and from flash rains, have caused considerable flooding and erosion below escarpment.

OBJECTIVE:

To develop a lasting appreciation and understanding of a total community soil and water management program.

TARGET:

- minimizing unnecessary soil tillage
- establish a shelterbelt program
- control of additional tree clearing
- increased use of forages
- construction of small headwater retention structures
- demonstration of above

ACTION:

Some winter wheat sown, fall '85 --- four water retention structures built.

SPONSORING BODIES:

- Deerwood Soil and Water Association
- Manitoba Agriculture
- P.F.R.A.
- R.M.'s of Thompson and Lorne

CONTRACTS SIGNED:

- Manitoba Agriculture and P.F.R.A.

CONTACT PERSONS:

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  Deerwood Soil & Water Assoc.
  Box
  Miami, Manitoba
  ROG 1HO

- Nat Olson
  P.F.R.A.
  Box 1047
  Morden, Manitoba
  ROG 1JO

- Rejean Picard
  Agricultural Representative
  Box 189
  Somerset, Manitoba
  ROG 2LO

- Brian Manning, Regional Director
  Central Region
  Provincial Building
  25 Tupper St. N.
  Portage la Prairie, Man.
  R1N 3K1

PROJECT NAME: SOUTH INTERLAKE LAND MANAGEMENT ASSOCIATION

PROJECT NUMBER: 23202

DURATION: 4 years **TOTAL FUNDING:** $180,600 (Fed.); $194,400 (Prov.)

LOCATION: Agricultural Representative Districts of Selkirk, Stonewall and Teulon.

BACKGROUND: The main land limitations within this area are: wind erosion, soil salinity, and soil degradation. As a result, the association feels it is appropriate to; investigate, demonstrate, promote and adapt suitable land management practices for the area.

TARGET:

General

To develop and implement a systematic district land management program to investigate and promote the conservation, maintenance and/or enhancement of the agricultural land base.

Specific

Development of:

- soil conservation practices
- soil salinity management

Demonstration of:

Conservation tillage systems, shelterbelts, residue management, green manures, organic soil management, saline soil management, soil fertility, soil sampling, on farm drainage, and irrigation.

SPONSORING GROUPS:

- Manitoba Agriculture
- P.F.R.A.
- South Interlake Land Management Association
- Warren - Marquette Soil Improvement Association

CONTACT PERSON:

Bryan Yusishen
Land Resource Specialist
Manitoba Agriculture
201 - 446 Main Street
SELKIRK, Man. R1A 2H7

PH: 482-3994

Floyd Wilson
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PH: 949-3120

Bill Yule, President, South Interlake Land Management Association
Box 403, **STONEWALL**, Manitoba ROC 2Z0

PH: 467-5698

PROJECT NAME: St. Alphonse-Bruxelles Soil and Water Management Association

PROJECT NUMBER: 23203

DURATION: 5 years (1985-90) TOTAL FUNDING: $87,800 (Fed.) $73,400 (Prov.)

LOCATION: St. Alphonse-Bruxelles area --- R.M. of Lorne and part of R.M. of Argyle

BACKGROUND:

The area is quite rolling with some steep slopes, parts too rough for general agriculture. Severe erosion has taken place on more abrupt slopes.

OBJECTIVE:

To develop a lasting appreciation and understanding of a total community soil and water management program.

TARGET:

- eliminating the practice of summerfallowing and minimizing unnecessary soil tillage practices for the purpose of erosion control.
- gully stabilization
- control of additional clearing of trees
- increased use of forage crops
- possible headwater retention structures

ACTION: Some winter wheat and gully stabilization

SPONSORING BODIES:

- Manitoba Agriculture
- P.F.R.A.

CONTRACTS SIGNED:

- Manitoba Agriculture and P.F.R.A.

CONTACT PERSONS:

- Marcel Cabernel, President
  St. Alphonse-Bruxelles Soil & Water Management Assoc.

- Rejean Picard
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  Box 189
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  ROG 2LO

- R. A. Bradley
  Area Conservationist
  P.F.R.A. Brandon Office
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  R7A 5Z2

- Brian Manning
  Regional Director
  Central Region
  Provincial Building
  25 Tupper St. N.
  Portage la Prairie, Man.
  R1N 3K1

PROJECT NAME: TURTLE RIVER SOIL MANAGEMENT PROJECT

PROJECT NUMBER: 23204

DURATION: five years **TOTAL FUNDING:** $127,940 (Fed.)
$ 40,000 (Prov.)

LOCATION: TURTLE RIVER WATERSHED CONSERVATION DISTRICT

BACKGROUND:

The Turtle River Watershed Conservation District covers an area of about 235,000 hectares. Dramatic soil losses have occurred in the past due to wind erosion and 85% of landowners surveyed in the area report they have less than 6" of topsoil remaining.

TARGET: **General**

To establish amongst area land owners good soil conservation management techniques which will combat erosion problems on their farms.

Specific

Development of:

-- wind erosion control techniques such as conservation tillage, trash management, sweet clover plowdown, field shelterbelts, strip cropping.

-- water erosion control techniques such as grassed waterways

Demonstration of:

-- soil conservation demonstrations which include conservation tillage and trash management, sweet clover plowdown and field shelterbelts. These are located on three individual sites.

SPONSORING GROUPS:

-- Turtle River Watershed Conservation District
-- Manitoba Agriculture
-- P.F.R.A.

CONTACT PERSON:

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Manitoba Agriculture
Box 180
Ste Rose, Man.
ROL 1SO
Phone: 447-2116

Erwin Allerdings
Soil Conservationist
P.F.R.A.
317 Main st.
Dauphin, Man.
R7N 1C5
Phone: 638-6108

PROJECT NAME:

Southwest Region Soil Management Project

PROJECT NUMBER:

03-7B-23206-02

DURATION:

Five years

TOTAL FUNDING:

$173,000 (Prov.)

LOCATION:

Southwest Region

BACKGROUND:

Soil degradation due to erosion and salinity are major concerns. Tillage levels are high with 10 - 20% of crop land in summerfallow. Approximately 5 - 6% of soils are salt affected. Higher inputs are required to offset effects of soil degradation.

TARGET:

General - To develop and demonstrate tillage and other soil management practices that will support soil conservation and improve saline areas while meeting agronomic and economic constraints.

Specific - Develop - conservation tillage recommendations
- recommendations for saline soil management
- Demonstrate - use of conservation till practices used on zero or minimum till
- use of management practice that will improve saline areas

SPONSORING GROUPS:

- Manitoba-North Dakota Zero Till Association
- Manitoba Agriculture

CONTACT PERSON:

Owen Beever
Manitoba Agriculture
1129 Queens Avenue
BRANDON Manitoba R7A 1L9

Phone: 726-6385

AGRI-FOOD DEVELOPMENT AGREEMENT - PROJECT SUMMARY

PROJECT NAME: Cowan Soils and Water Conservation Project

PROJECT NUMBER: 23207

DURATION: Four years TOTAL FUNDING: $107,600 (Fed.); $31,200 (Prov.)

LOCATION: Cowan area

BACKGROUND:

The agricultural lands along the North Duck River near Cowan, Manitoba, are prone to periodic stream overflows and subsequent flood damage and erosion. Flooding generally occurs following heavy rains in June and July after crops have been seeded. Flooding rarely occurs during spring snowmelt.

Flooding has caused destruction or reduced yields of crops, resulting in loss of topsoil and gullying, destroyed standing and harvested hay, reduced pasture availability, damage to various private and public property, scattered debris and disrupted transportation and community services.

TARGET:

To develop and implement a combined on-farm soil and water management scheme to rehabilitate, conserve and enhance the land base for its long term productivity.

This will include:

- river bank stabilization and protection
- reshaping and seeding down actively eroding gullies into manageable forage producing waterways
- river debris cleanout and where feasible, side dyking of critical area breakout locations to maintain the flow capacity within the channel
- implementation of forage for contour cropping and strip farming of erosion susceptible fields

- assistance in the removal of flood waters from arable fields
- a field scale demonstration showing economics of conservation tillage vs conventional tillage practises

SPONSORING GROUPS:

- Cowan Soils and Water Conservation Co-Operative
- P.F.R.A.
- Manitoba Agriculture

CONTACT PERSONS:

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Manitoba Agriculture
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Swan River, Manitoba
ROL IZO
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Erwin Allerdings
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100 Federal Building
Dauphin, Manitoba
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Phone: 638-6108

Ted Romak, Board Chairman
Cowan Soils & Water Conservation Co-Op
Box 115
Cowan, Manitoba
ROL OLO
Phone: 569-4898

PROJECT NAME: PASQUIA SOIL AND WATER MANAGEMENT

PROJECT NUMBER: 23208

DURATION: FOUR YEARS TOTAL FUNDING: $95,800 (PROV)
$81,000 (FED)

LOCATION: POLDERS 1 TO 1V, PASQUIA SETTLEMENT, THE PAS

BACKGROUND:

The Pasquia Valley is totally dependent upon a major drainage system connected to a pumping unit station for its agriculture lands that are being cropped. Continuing work is taking place in the valley to improve major drains. At the same time, on-farm unit areas must be drained to the major drains. There is a concern of siltation of major ditches and the control of run-off during periods of heavy water flow. The area also experiences in its pasture lands the effects of the high water table with run-off brining to the surface of salts.

TARGET:

- To ensure properly designed on-farm drains which will minimize the siltation of major drains.
- Management and drainage monitoring of saline soils in the Pasquia Project.
- Demonstration of soil management practices that minimize erosion.
- Promotion of a co-ordinated planning approach to carry out future drainage maintenance and soil productivity and other compatable resource use enhancement activities.

SPONSORING GROUP: Leona Hrabarchuk, Resident Administrator,
L.G.D. of Consol,
P.O. Box 578,
THE PAS, Manitoba. R9A 1K6

Erwin Allerdings, Area Soil Conservationist,
Prairie Farm Rehabilitation Administration,
Room 100, 317 Main Street South,
DAUPHIN, Manitoba. R7N 3E5

Manitoba Agriculture,
27 - 2nd Avenue Southwest,
DAUPHIN, Manitoba. R7N 3E5
Attention: Roger Chychota, Regional Director

WHITEMUD WATERSHED CONSERVATION DISTRICT

Soil Management Project
23210

The overall objective of the project is to demonstrate techniques and management practices that motivate landowners to utilizes these techniques and practice to solve their on-farm wind erosion problems and enhance the agricultural capability of the land.

The techniques of conservation tillage would be demonstrated to increase surface crop residue and organic matter levels in the soil profile to provide adequate wind erosion protection and enhance soil structure. The conservation tillage concept attempts to keep distribution of the soil at a minimum level, thus providing good surface protection against losses to wind erosion.

The most serious land problem in the Whitemud Watershed is soil erosion. The conservation District area encompasses 711,495 hectares (2400 square miles). The area includes 15 rural municipalities extending north to south from Kelwood to Carberry and east to west from Minnedosa to the Portage diversion. There are 8 sub-districts determined by drainage basins of the major tributaries of the Whitemud River.

TOTAL FUNDING: $80,500 (Fed.)
$67,300 (Prov.)

CONTACT PERSONS:

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Watershed Manager
Box 130
Neepawa, Manitoba
ROJ 1HO

Phone: 476-5019

Bob Bradley
P.F.R.A.
201-244 10th Street
Brandon, Manitoba
R7A 4E8

Phone: 726-7584

PROJECT NAME: FLOOD INDUCED SALINITY ABATEMENT

PROJECT NUMBER: 23211

DURATION: four years **TOTAL FUNDING:** $110,000 (Fed.)
$ 86,500 (Prov.)

LOCATION: Delta Marsh area

BACKGROUND:

Historically there have been wide fluctuations in Delta Marsh water levels. As a result, furbearing animals, waterfowl, and people using the marsh have been at times adversely affected.

TARGET: General

To develop and implement a land use strategy to reconcile the legitimate interests of farmers, environmentalists, wildlife groups and recreational users.

Specific

Development of:

-- recommendations for saline soil management
-- conservation tillage practices
-- reduced tillage costs through minimum or zero till practices

Demonstration of:

-- land use alternatives to what is now primarily a grain and special crops economy in transition areas
-- increased use of hay crops on saline soils
-- grass varieties as green manure crops
-- how salinity may be controlled in similar situations elsewhere

SPONSORING GROUPS:

-- Delta Agricultural Conservation Co-op
-- P.F.R.A.

CONTACT PERSON:

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PROJECT NAME: Pembina Soil and Crop Management Association

PROJECT NUMBER: 23212

DURATION: Five Years (1985 - 1990) TOTAL FUNDING: $ 60,500 (Fed.)
$ 76,900 (Prov.)

LOCATION: Rural Municipality of Pembina

BACKGROUND:

Pembina Municipality has rolling plains to very steep slopes, and the Pembina River runs through the R.M. Water and wind erosion are a problem. The Pembina Forage Association, in existance since 1979, worked towards stabilization and improvement of soils by planting forage, gully stabilization and improved fertility.

OBJECTIVE:

To develop a lasting appreciation and understanding of a total community soil and water management program.

TARGET:

- minimizing unnecessary soil tillage
- implement an organized gully stabilization program
- control additional tree clearing
- institute a field shelterbelt program
- increased use of forages

ACTION:

Small amount of rota-tilling and treflan application in preparation for 1986 trees.

SPONSORING BODIES:

- Manitoba Agriculture
- P.F.R.A.
- R.M. of Pembina
- Town of Manitou

CONTRACTS SIGNED:

- Manitoba Agriculture and PFRA

CONTACT PERSONS:

- Don Dobson, President
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  Manitou, Manitoba
  ROG 1GO

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  ROG 1JO

- Brian Nedohin
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  ROG 1JO

- Brian Manning
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  25 Tupper St. N.
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PROJECT NAME:

Elgin Plains Soil Management Project

PROJECT NUMBER:

03-7B-23213-02

DURATION:

Five years

TOTAL FUNDING:

$ 90,650 (Fed.)
$103,000 (Prov.)

LOCATION:

Elgin Creek Watershed

BACKGROUND.

A major crop producing area with a high level of inputs including tillage. Soil management problems are typical of dryland farming areas and include localized spring flooding, salinity, wind and water erosion, etc.

TARGET:

General - To develop and demonstrate soil management practices that support soil and water conservation while meeting agronomic and economic constraints.

Specific - Develop - conservation tillage recommendations
- recommendations for saline soil management

- Demonstrate - practices such as conservation tillage, field shelterbelts, etc that will reduce wind and water erosion
- use of management that will improve saline areas
- use of small dams to temporarily hold back spring run-off and prevent erosion

SPONSORING GROUPS:

- Elgin Plains Soil Management Association
- Manitoba Agriculture
- P.F.R.A.

CONTACT PERSONS:

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1129 Queens Avenue
BRANDON, Manitoba R7A 1L9
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Bob Bradley
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201 - 244 - 10th Street
BRANDON, Manitoba R7A 4E8
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PROJECT NAME: CUSTOM SOIL SAMPLING SERVICE

PROJECT NUMBER 23214

DURATION: Five Years TOTAL FUNDING: $27,000 (Prov.)

LOCATION: One Per Region (Total of Five)

BACKGROUND:

Less than 20% of the provinces farmers use the Provincial Soil Testing Services in any given year. One of the major obstacles limiting such use is the difficulty often encountered in obtaining samples to the recommended 60 cm depth. Without proper sampling and subsequent sample handling recommendations provided can be very misleading and have a significant negative economic impact if followed.

TARGET: General

To evaluate the concept of having an independent sampling service available to producers on a fee-for-service basis.

Specific

-- To increase the number of producers using soil testing as a basis for applying fertilizer to crops and thereby make more profitable use of their fertilizer investment.

-- To increase confidence in the quality of soil samples submitted to the laboratory and thereby in the recommendations provided.

-- To provide a larger base for assessing the annual fertility status of soils and thereby improving general fertilizer recommendations.

SPONSORING GROUPS:

-- Pembina Soil and Crop Management Association
-- South Interlake Land Management Association
-- Agassiz Soil and Crop Improvement Association
-- Roblin Weed Central Board
-- Marco Grassland Society

CONTACT PERSON:

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PROJECT NAME: EASTERN GRASSLAND SOCIETY SOILS MANAGEMENT DEMONSTRATION

PROJECT NUMBER: 23215-04-01

DURATION: 5 years TOTAL FUNDING: $122,820 (Fed.); $91,900 (Prov.)

LOCATION: Eastern Region

BACKGROUND: The Eastern Region has a diverse soil base which requires good soil fertility management for optimum crop production. Increased crop production on class 4, 5 and 6 soils in particular has economic potential provided good fertility management.

TARGET: General - Through the application of soil fertility technology increased economic crop production has potential.

Specific - Demonstrations of:

- Efficient use of fertilizers and legumes in crop rotations to improve soil structure and fertility.
- Conservation tillage by direct drilling on erosion prone soils and specialized equipment on organic soils.
- Forage improvement on class 4, 5 and 6 soils by various low cost methods.

SPONSORING GROUP: Eastern Grassland Society

CONTACT PERSONS:

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ROE OCO

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ROE OCO

PROJECT NAME: STUARTBURN-PINEY AGRICULTURAL DEVELOPMENT ASSOCIATION (SPADA) SOIL AND WATER MANAGEMENT PROJECT

PROJECT NUMBER: 23216

DURATION: 5 years TOTAL FUNDING: $72,150 (Fed.); $92,000 (Prov.)

LOCATION Vita, Manitoba

BACKGROUND: Farmers in the Stuartburn-Piney Agricultural Development Association district require improved water and soils management practises.

TARGET: General - To develop improved practises such as:
- on-farm drainage where feasible
- cropping programs for land not capable of being drained
- lower cost tillage on marginal soils
- lower cost development methods

SPONSORING GROUPS: Stuartburn-Piney Agricultural Development Association and PFRA

CONTACT PERSONS:

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PROJECT NAME: Washow-Icelandic Soil & Water Management

PROJECT NUMBER: 23217

DURATION: Five Years

TOTAL FUNDING: $170,700

$ 59,700 (Fed.)
$111,000 (Prov.)

LOCATION: Arborg (Interlake Region)

BACKGROUND:

This project is a comprehensive Soil and Water Management demonstration program. It is one of the proto-type conservation districts being promoted under the Agri-Food Agreement.

TARGET:

Activities include major work on formal district establishment, Soil Conservation Demonstrations, On-Farm Drainage Demonstrations and Communication activities. The district establishment is an integral part of the project in that the objective for the project is to develop an orderly and systematic soil and water management plan for the watershed.

Soil and Water Demonstrations will include:

Management of Organic Soils
Soil Conservation Demonstrations
Climatological Monitoring
Detailed Farm Planning Assistance
On-Farm Drainage Demonstrations

The project is managed by an Advisory Committee comprised of six producers and three Municipal Councillors.

SPONSORING GROUPS:

Manitoba Agriculture and P.F.R.A.

PROJECT DIRECTOR:

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Regional Director - Interlake Region
Manitoba Agriculture
Box 2000
ARBORG, Manitoba ROC 0A0

Telephone: 1-204-376-5212

PROJECT LEADER:

Gerald Huebner
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Telephone: 1-204-376-5211

PROJECT NAME: MAINTAINING TRASH COVER FOR IMPROVED SOIL & WATER MANAGEMENT

PROJECT NO.: 23220

DURATION: 6 YEARS TOTAL FUNDING: $25,000 (Prov.)

LOCATION: NORTHWEST REGION

BACKGROUND:

In Manitoba, 1.8 million hectares (4.5 million acres) of land are subject to wind and water erosion. Approximately 40% of this acreage has already been seriously damaged. One of the major causes of erosion on the prairies is excessive tillage and the resultant lack of a protective vegetative cover on farmland.

TARGET: General

To demonstrate to farmers the most efficient methods of tillage and trash management for preparing a seed bed to suit the farmer's seeding equipment, and at the same time maintain a minimum trash cover for soil protection from wind and water erosion.

Specific

Development of:
- soil and water management demonstrations by practicing good stubble and trash management in areas where inappropriate tillage practices, stubble burning, and excessive use of bare summerfallow are being utilized.
- an economic evaluation of improved trash management compared to the conventional tillage practices.

Demonstration of:
- improved straw and chaff spreading.
- reduced number of tillage operations.
- selecting the right implement to do the job.
- retain standing stubble to trap snow on coarse textured soils.

SPONSORING GROUPS:

Manitoba Agriculture, Northwest Region

Farmer Group Co-operators

CONTACT PERSON:

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PROJECT NAME: Dufferin Soil Management

PROJECT NUMBER: 23221

DURATION: Four Years (1985 - 1989) **TOTAL FUNDING:** $88,600 (Fed.)
$ 4,500 (Prov.)

LOCATION: R.M. of Dufferin

BACKGROUND:

The R.M. of Dufferin is located near the western edge of the Lake Agassiz Basin. Soil ranges from clay to light sandy loams to sand. Considerable special crops are grown and wind erosion has been a major problem.

OBJECTIVE:

To develop a lasting appreciation and understanding of a total community soul management system.

TARGET:

- block plant as much of the area as possible with field shelterbelts (100 miles a year)
- increase annual cover crops
- use of annual shelterbelts
- crop rotation and stubble management demonstration

ACTION:

Approximately 110 miles of field shelterbelts are planned for spring of '86

SPONSORING GROUPS:

- Manitoba Agriculture
- P.F.R.A.
- R.M. of Dufferin

CONTACTS:

- William K. Roth
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  Box 100
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  ROG OJO

- Nat Olson
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PROJECT NAME: Winkler Soil Management

PROJECT NUMBER: 23222

DURATION: Four Years (1985 - 1989) **TOTAL FUNDING:** $69,500 (Fed.)
$ 4,500 (Prov.)

LOCATION: The Altona Light Sandy Loams and Altona Fine Loams — north and south of Winkler, Manitoba.

BACKGROUND:

The area is level topography of lacustrine light sandy loam and fine loam soils. Special crops such as potatoes, sugarbeets, onions, and corn are grown extensively. Soil erosion by wind has been a major problem.

OBJECTIVE:

To develop a lasting appreciation and understanding of a total community soil management program.

TARGET:

- block plant as much of the area as possible with field shelterbelts.
- increase annual cover crops
- use of annual field shelterbelts
- crop rotation demonstration

SPONSORING GROUPS:

- Manitoba Agriculture
- P.F.R.A.
- Stanley Agricultural Society

CONTACTS:

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  ROG 2X0

- Nat Olson
  Area Conservationist
  P.F.R.A.
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- Brian Nedohin
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PROJECT NAME: Minitonas Farmland Conservation

PROJECT NUMBER: 23223

DURATION: 4 years **TOTAL FUNDING:** $97,300 (Fed.); $40,000 (Prov.)

LOCATION: R.M. of Minitonas

BACKGROUND:

The R.M. of Minitonas contains land that is subject to severe wind and water erosion. Approximately 10,000 acres that are presently improved have slopes greater than 3 percent. Approximately 13,000 acres of farmland are fine and medium textured sands and subject to wind erosion.

TARGET:

1. To protect croplands from wind and water erosion by maintaining adequate amounts of crop residue on the soil surface.
2. To promote the utilization of a variety of on-farm soil conservation practices.
3. To increase the organic matter content and improve available crop nutrients.
4. To rehabilitate on-farm actively eroding gullies.
5. To facilitate good soil management by installing a system of properly designed and licensed on-farm drains.

SPONSORING GROUPS: R.M. of Minitonas
P.F.R.A.
Manitoba Agriculture

CONTACT PERSONS:

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PROJECT NAME:

Sandy Lands Soil Management Association

PROJECT NUMBER:

03-7A 23224-02

DURATION:

Four Years

TOTAL FUNDING:

$52,630 (Fed.)
$23,350 (Prov.)

LOCATION:

The rural Municipalities of Alberta, Arthur and Edward

BACKGROUND:

Lyleton, in the R.M. of Edward was one of three pilot projects in which field shelterbelts were planted in the 1930's and 40's. These shelterbelts are now mature and require renovation or replacement. Other areas required protection from wind erosion and salinity.

TARGET:

General: To develop and demonstrate soil management practices that support soil and water conservation while meeting agronomic and economic constraints.

Specific: Develop - methods of renovating mature shelterbelts
- recommendations for saline soil management.

Demonstrate - practices such as planting field shelterbelts, conservation tillage and zero tillage, that will reduce wind erosion.
- the use of green manure crops in soil improvement.
- management that will improve saline areas making them more productive.

SPONSORING GROUPS:

- Sandy Lands Soil Managment Association
- Manitoba Agriculture
- P.F.R.A.

CONTACT PERSONS:

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PROJECT NAME: Gilbert Plains On-Farm Management Program

PROJECT NUMBER: 23225

DURATION: Three (3) years

FUNDING: $108,240 (Federal); $20,400 (Provincial)

LOCATION: R.M. of Gilbert Plains

BACKGROUND:

Producers and councillors of the R.M. of Gilbert Plains have agreed that more effort is required to reduce the amount of wind and water erosion in the municipality. With the cooperation of federal and provincial soil specialists, a plan has been developed to help producers to evaluate their own soil conservation practises.

TARGET:

Through promotion and demonstration of sound land stewardship, increase producer awareness of good soil and water management practises. An on-farm producer incentive program related to soil conservation, will be used to stimulate interest in the project.

SPONSORING GROUPS:

Agriculture Canada - PFRA
Manitoba Agriculture
R.M. of Gilbert Plains

CONTACT PERSON:

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PROJECT NAME: Glenboro Soil Management Association

PROJECT NUMBER: 23226

DURATION: Three (3) years

FUNDING: $39,200 (Federal); 24,100 (Provincial)

LOCATION: Glenboro Soil Management Association

BACKGROUND:

Light textured soils in an area bordered on the north by the Assiniboine River, west to PTH No. 18, south to PTH No. 23 and east to the R.M. of South Cypress, are subject to increased wind erosion. Salinity is an added problem in some parts of the district. Reduced tillage and well maintained shelterbelts are methods that can be used to reduce erosion problems

TARGET:

Establish up to eight sites to demonstrate the benefits of reduced tillage and encourage the planting of up to 30 miles of shelterbelts.

SPONSORING GROUPS:

Agriculture Canada - PFRA
Manitoba Agriculture
Glenboro Soil Management Association

CONTACT PERSON:

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PROJECT NAME:

Miniota Municipal Soil Management Association

PROJECT NUMBER:

03-7A 23227

DURATION:

Three Years

TOTAL FUNDING:

$30,000 (Fed.)
$15,000 (Prov.)

LOCATION:

The Rural Municipality of Miniota

BACKGROUND:

The area lies within the watershed of the Assiniboine River System. Drainage of the area is facilitated by a network of streams; the Niso Creek, Minnewasta Creek and the Arrow River; all flowing into the Assiniboine. Eroded slopes associated with these river systems are a local concern. There is also a large acreage of coarse textured (sandy) soils.

TARGET:

General: To demonstrate and promote soil management practises which will contribute to improved soil quality and reduced soil erosion, within agronomic and economic constraints.

Specific: To demonstrate and promote soil management practises as follows:

- establish and maintain new field shelterbelts for the prevention of soil erosion by wind.
- increased use of soil management practises such as conservation tillage, green manure crops, critical area treatment of eroded slopes and saline areas, and use of annual grass barriers; all to reduce soil erosion, improve moisture efficiency and increase crop yields.

SPONSORING GROUPS:

- Miniota Municipal Soil Management Association
- Manitoba Agriculture
- P.F.R.A.

CONTACT PERSONS:

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PROJECT NAME: South Central Soil & Water Management Assoc. Inc.

PROJECT NUMBER: 23228

DURATION: Two Years (1988 - 1989) TOTAL FUNDING: $20,000.00 (Fed.)
$3,000.00 (Prov.)

LOCATION: R.M.'s of South Norfolk and Victoria

BACKGROUND:

The Rural Municipalities of South Norfolk and Victoria cover an area that totals 139,900 ha (345,600 acres). The district is traversered by three watersheds, the main one being the Assiniboine, and to a lesser extent the Boyne and Cypress Rivers.

Land capability for agriculture and soil type varies greatly throughout the area. Two-thirds of the land is Class lV to Vl. Soils range from clay to light sandy loams and sand.

OBJECTIVE:

To develop a land management program that will promote conservation and maintain or enhance the agricultural land base for its long term productivity.

TARGET:

The targets are:

1. Dealing with present and potential gullies and severely eroded slopes in the Assiniboine and Boyne River watershed areas.

2. Establishment of a field shelterbelt program to reduce wind erosion.

3. Increase the use of and the productivity of forage crops in areas subject to wind and water erosion, and also salt-affected areas.

4. Minimizing the practice of summerfallowing and unnecessary soil tillage practices for the purpose of soil erosion control.

5. Evaluate the possibility of installing flood water retarding structures to prevent or heal gullying and to reduce runoff as a means of water erosion control.

ACTION:

Approximately 6 miles of field shelterbelts were planted in 1988 and some gully stabilization is also planned.

SPONSORING GROUPS:

- Manitoba Agriculture
- P.F.R.A.

CONTACTS:

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PROJECT NAME: Pasquia Polder III Reclamation Project

PROJECT NUMBER: 24101

PROJECT OBJECTIVE: To improve the land base by drainage reclamation to enable the development of additional land for stable, viable, agricultural crop production.

PROJECT PROPONENT: Manitoba Water Resources Branch, in cooperation with PFRA, Canada

BACKGROUND AND RATIONALE: A February, 1984 Summary Report, prepared by the Manitoba Water Resources Branch, and based on joint studies with Manitoba Agriculture and PFRA, indicated that additional drainage in the Pasquia Lake area, near The Pas, for intensive agricultural development would be economically viable, with an estimated benefit-cost ratio of 2.4. As a result of the project additional land in Polder III would be developed for agricultural use, producing crops comparable to those in Polders I and II and providing net benefits of about $1.2 million annually. The expanded farm acreage would add support to the local farm-related service industries and animal health services, thereby benefitting the entire farming and urban community.

PROJECT DESCRIPTION: The project includes the enlargement of the Pasquia Lake Drain, the reconstruction of existing lateral drains, and the construction of new lateral drains. A pumping plant of 200 cfs capacity will be constructed at the outlet of the Pasquia Lake Drain into the Pasquia River, and a second pumping plant, 210 cfs capacity, would be constructed at the outlet of the Pasquia River to the Saskatchewan River. The estimated capital cost of the four phased project is approximately $2.4 million.

PROJECT DEVELOPMENT: The project will be initiated by Manitoba Natural Resources under the Economic and Regional Development Agreement (ERDA), Agri-Food Sub-Agreement. The project could be developed over an eight year period. A Project Monitoring Committee and a Regional Advisory Committee have been established to assist in the development of the project. The project includes provisions for a waterfowl crop damage prevention program.

CONTACT PERSON: F. Penner, P.Eng.
Head, Special Services
Water Resources Branch
Manitoba Natural Resources
1577 Dublin Ave.
Winnipeg, Manitoba R3E 3J4
Phone: 945-7404

PROJECT NAME: Washow-Icelandic Water Development

PROJECT NUMBER: 24102

PROJECT OBJECTIVE: To enhance agricultural productivity in the Washow Bay Drain watershed through improved water management.

PROJECT PROPONENT: Manitoba Water Resources Branch, in cooperation with Manitoba Agriculture

BACKGROUND AND RATIONALE: In recent years, about 120 farmers in the Washow Bay area have experienced serious crop losses, mostly as a result of excess moisture conditions during the growing and harvest seasons, and partially as a result of backwater caused by high water levels on Lake Winnipeg concurrent with heavy rains. The affected area totals about 180 square miles, of which about 50 percent is in agricultural cropland, improved pasture and grassland.

PROJECT DESCRIPTION: A drainage system improvement project will be developed in which all three components of the system, including the provincial waterways, the municipal drains and the on-farm drains will be upgraded to current agricultural standards which are based on soil type, soil capability for agriculture, climatic conditions and land use. The project will affect about 55 miles of provincial waterways and about 150 miles of municipal drains, and may include a major diversion of the Washow Bay Drain directly east to Lake Winnipeg. Also included will be some dyking of areas near Lake Winnipeg, as well as the provision of temporary pumping capability to assist drainage from these areas during periods of high lake level. The project's benefit-cost ratio has been computed to be 1.3. The $6.2 million capital cost will be borne by the province, the local governments and the landowners. $2.0 million is identified under the Agri-Food Agreement to finance the first phases of the project.

PROJECT DEVELOPMENT: The project will be developed in four phases. The Manitoba Water Resources Branch is responsible for constructing the project and Manitoba Agriculture is responsible for coordinating local support and for providing technical assistance with respect to the construction of on-farm drains.

CONTACT PERSON:

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PROJECT NAME: North Duck River Headwater Storage

PROJECT NUMBER: 24103

PROJECT OBJECTIVE: To reduce the severity and frequency of damages associated with flooding and erosion of agricultural land along the lower North Duck River, by constructing a headwater storage dam in the upper reaches of the watershed.

PROJECT PROPONENT: Manitoba Water Resources Branch, in cooperation with Manitoba Agriculture

BACKGROUND AND RATIONALE: Flash flooding along the North Duck River east of the Duck Mountains is a recurring natural phenomenon, typical of areas below the escarpment. In the past, the channel capacity along the flatter reaches of the lower North Duck River has been exceeded approximately four out of ten years on the average, affecting approximately 6,500 acres of fertile cultivated land and causing extreme hardships to the approximately 30 farmers who operate this land. The extreme flooding and erosion affect real property, cause crop losses, increase costs of farm operation, erode farmland, disrupt transportation and community services and affect fish spawning habitat.

PROJECT DESCRIPTION: The project will consist of a 12 metre high earth dam to store water in the headwaters of the North Duck River plus some downstream dyking. The estimated cost of this project is approximately $1 million. The project will prevent all flooding approximately 80 percent of the time, and reduce the frequency and severity of flooding at other times.

PROJECT DEVELOPMENT: The Engineering and Construction Branch of the Department of Natural Resources has presently completed detailed geotechnical investigations and additional preliminary designs, cost estimates and other investigations necessary to confirm the technical feasibility of constructing the proposed project. An environmental impact study will be undertaken before construction of the project is approved. The time frame for construction surveys, design, construction and all related activities would be about three years.

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Water Resources Branch
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PROJECT NAME: Cook's Creek Crop Area Productivity Enhancement

PROJECT NUMBER: 24104

DURATION: Two (2) years

FUNDING: $900,000 (Federal)

LOCATION: R. M. of Springfield

BACKGROUND:

The Cook's Creek watershed is comprised of an area of approximately 100,000 acres, to the north-east of Winnipeg. The two dominant soil types are the heavy Osborne and Red River clays. Poor internal drainage and level topography has resulted in severe crop losses during periods of excess moisture. This has restricted the types of crops that can be successfully grown in the area. By providing improved drainage for the area, it is considered feasible to grow a number of other crops, with possible higher returns per acre.

TARGET:

1) Construction of a diversion of the Cook's Creek to the Red River Floodway.

2) Reconstruction of major and lateral drains

3) Provision of on-farm drainage.

SPONSORING GROUPS:

Agriculture Canada - PFRA
Manitoba Department of Natural Resources

CONTACT PERSON:

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PROJECT NAME: Carman Flood Diversion Project

PROJECT NUMBER: 24105

DURATION: Three (3) years

FUNDING: $4,000,000 Federal; $1,750,000 Provincial; $350,000 Town of Carman

LOCATION: Carman, Manitoba

BACKGROUND:

The town of Carman experienced serious flooding from the Boyne River in 1970, 1974 and again in 1979. Flood damage in the 1979 flood was estimated at over $2 million, in 1981 dollars. The majority of the business section of Carman is located within the flood risk area. Total estimated potential damages in Carman and the adjoining areas in the R.M. of Dufferin, for a 1:27 year flood are $13,559,600 and in a 1:100 year flood are $21,956,700. Engineering studies have established that a diversion of the Boyne River can be constructed at a total cost of $6,100,000, which would safeguard Carman from future flooding.

TARGET:

Construction to be completed in 1990.

SPONSORING GROUPS:

CONTACT PERSON:

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PROJECT NAME: FARM BUSINESS GROUP PROGRAM

PROJECT NUMBER: 31100

DURATION: 5 years **TOTAL FUNDING:** $850,000 (Prov.)

LOCATION: Throughout Rural Manitoba, via Agricultural Representatives or other regional staff

BACKGROUND:

The Farm Business Group program is a two-year program specifically designed to teach participating farm family members basic skills in farm management and improve farm decision making on a day to day basis.

The first year consists of 5 compulsory lessons as follows:

(1) The role and importance of farm management.

(2) How financial statements are used to manage a farm business.

(3) The essentials of planning and budgeting to develop a profitable farm plan.

(4) Use of farm credit, including risk and security.

(5) Grain marketing and selling strategies used in marketing farm production.

Additional lectures are optional.

During the second year, participants will be assisted in developing their own farm plans utilizing a micro computer and information learned during the first year. Additional lectures on various topics are optional.

Lecturers are Agricultural Representatives assisted by Home Economists and regional specialists.

TARGET:

1500 farm families, with priority going to younger, beginning farmers or those needing training in financial management, with an opportunity to upgrade their financial and farm management knowledge and skills.

SPONSORING GROUPS:

-- Manitoba Agriculture

CONTACT PERSON:

Local Agricultural Representative or Home Economist.

PROJECT NAME: FARM FAMILIES 87 - LIVING SUCCESSFULLY (HOME STUDY PROGRAM)

PROJECT NUMBER: 31201-01-09

DURATION: January - March 1987 TOTAL FUNDING: $19,450 (Prov.)

LOCATION: Throughout Manitoba

BACKGROUND:

The home study format offers the advantage of learning in the personal and confidential setting of home, at a time convenient to the family. This home study, which views farming as a lifestyle and as an occupation, is designed to provide an opportunity for rural families to set realistic goals, develop an organizational plan and use sound management principles in their businesses and help families to alleviate the financial pressures and symptoms of distress.

This program will provide the impetus for family members to explore and understand the interrelationships of family and farm, and the pressures and stress now affecting those in farming and other businesses. Time commitments, financial involvements, physical labor, and personal investment will all be examined to determine the impact on the family.

TARGET:

700 young and beginning farm families between ages 25 and 40 years who wish to improve their personal and business management skills to cope with change, reduce stress and make better decisions.

SPONSORING GROUPS:

-- Manitoba Womens Institutes
-- Manitoba Agriculture

CONTACT PERSONS:

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PROJECT NAME: PROVINCIAL FARM WOMEN'S CONFERENCE

PROJECT NUMBER: 31201-02-09

DURATION: Conference November 1988 TOTAL FUNDING: $10,000 (Prov.)

LOCATION: Winnipeg

BACKGROUND:

Success on the family farm requires that both technical information and the goals and needs of the family be considered. Farm women are actively involved in the farm business. As well, farm women carry out a large number of family and community responsibilities. Farm Women's groups have identified the need for more knowledge in the areas of farm business management, production and family relationships. They have also expressed the need to develop skills in the areas of goal setting, family communication, stress management, raising children and managing the money squeeze.

With all these demands, farm women have expressed a need for knowledge and support to help them cope.

The purpose of the conference is to provide an opportunity which will allow farm women to share ideas, experiences and knowledge with other farm women.

TARGET:

500 farm women, with primary emphasis on those in the 20 - 45 age group, representing younger and beginning farm families.

SPONSORING GROUPS:

--- Farm Women's Organization - Portage and District
--- Manitoba Agriculture

CONTACT PERSONS:

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PROJECT NAME: Dauphin Agricultural Society's Farm Family Seminar

PROJECT NUMBER: 31301

DURATION: 5 years **TOTAL FUNDING:** $10,000 (Prov.)

LOCATION: Dauphin and community

BACKGROUND:

Since the 1970's, the uncertain unstable environment for farmers has been created by increasing input costs, fluctuating markets, deflating land prices and double digit interest rates. Farm families often found themselves in a state of depression, not knowing whether there is any future for them in farming.

TARGET:

Dauphin Agricultural Society directors saw a need to provide interaction opportunities for farm families where sharing of concerns can be aired and feelings of confidence can be reinstated, simply through communication.

Specific Targets

- To develop diverse agricultural learning opportunities, specifically for farm women.
- To develop better attitudes towards the stresses of farming.
- To develop broader business knowledge and experience.
  -- Marketing Outlook
  -- Futures Trading
  -- Biotechnology in Animal Production
  -- Continuing Education
  -- Telidon and Grassroots Infomart
- To develop understanding of resource management
  -- "Soil at Risk" -- Canada's eroding future

SPONSORING GROUPS: Dauphin Agricultural Society
Dauphin Women's Institute
Dauphin-Ochre Weed Control Board
The Bank of Nova Scotia
Manitoba Agriculture

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PROJECT NAME: Southwest Regional Farm Family Seminars

PROJECT NUMBER: 31301-02-01

DURATION: 4 years

LOCATION: Southwest Region

FUNDING: $9,480 (Prov.)

BACKGROUND:

It has been seen that in order for a family farm operation to be successful, the family must be able to also successfully cope and/or manage stress related to family and farm related matters.

The levels of stress in farming are on the increase due to financial difficulties. Technological development also require rapid changes in farm management, planning, and living style. Coping with these changes and difficulties requires knowledge in how to handle the stress these elements create.

In planning programs for the farm family it is important to consider goals and needs of the whole family and recognize the stresses which are on the farm. Families must be aware of support available to them as well as their personal goals while planning their farming operation.

Farming success will be easier to attain if families have the skills to make decisions in their individual situations using the resources available to them to their best advantage.

TARGET:

General

Families would be provided with an educational opportunity of learning to make the best decisions with the financial and human resources they have at their disposal.

Farm families will improve their ability to cope with stress related to farming in the 1980's, improve family communications and understand other farm related issues.

The provision of a meeting place whereby farm families are able to express their needs and concerns regarding farm and family issues.

Specific

Seminars will be organized on the following topics: family goal setting, farm law, two generation farms, retirement planning, stress, communications.

SPONSOR: Manitoba Agriculture

CONTACT: Keith Kyle, Farm Management Specialist
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PROJECT NAME: CENTRAL REGION FARM FAMILY SEMINAR

PROJECT NUMBER: 03-7B-31301-03-01

DURATION: five years **TOTAL FUNDING:** $10,000 (Prov.)

LOCATION: Carman, Manitoba

BACKGROUND: The "Farm Finance and Technology Management" Task Group Report of October, 1983, indicates a concern about the level of stress that it perceives to exist in the farm community.

For the farm family, business and personal life skills are critical in coping with today's stresses of the difficult economic climate, rapidly changing technology and changing values and attitudes.

TARGET: General

That farm families in Central Region attending these seminars will use sound personal management skills to reduce stress, cope with change and improve farm management decisions. These better quality management decisions will result in improved profits on the farm.

Specific

Educational events will be offered, by direction from farmers and from past evaluations, to cover such topics as:

- dealing with stress
- inter generational farming
- time management
- inter personal communications
- role of today's women on the farm
- husband/wife partnerships
- promoting the farm image to important others
- others

SPONSORING GROUP: Central Region Farm Family Group

CONTACT PERSON: Linda Sprung
Home Economist
Manitoba Agriculture
Box 1359
MORDEN, Mb. ROG 1JO

Phone: 822-5461

PROJECT NAME: Eastern Region Farm Family Seminar

PROJECT NUMBER: 31301-04-02

DURATION: Up to 5 years

LOCATION: To be determined year by year

BACKGROUND: Manitoba Agriculture is acutely aware that a successful family farm operation requires that the farm family be able to cope or deal with a variety of pressures and changes.

The "Family Finance and Technology Management" Task Group report of October 1983 indicates a concern about the level of stress that it perceives to exist in the farm community. Farm families are having to adopt technology at a rapid rate which requires changes in farm management, planning and in the style of living.

TARGET:

GENERAL

Any farm family that wishes to improve decision making skills and ability to cope with change and to ultimately reduce stress in their individual situations.

SPECIFIC

Educational events will be offered, by direction from farmers and from past evaluations, to cover such topics as:

- dealing with stress
- improving family relationships
- inter generational farming
- managing now for future good times

SPONSORING GROUP: Steinbach Credit Union

CONTACT PERSON:

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Manitoba Agriculture
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Steinbach, Manitoba
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Phone: 326-9841

PROJECT NAME: Regional Farm Family Seminar (Interlake)

PROJECT NUMBER: 31301 - 05 - 01

DURATION: Five years Total Funding: $10,000 (Prov.)

LOCATION: Teulon - 1986
Eriksdale - 1987
Warren - 1988 (Tentative)
Other locations undetermined as of yet

BACKGROUND:

The family farm has long been seen as the backbone of the Agriculture business. To support this unit, there is a need to aim educational endeavors at the total unit - both husband and wife in areas that will strengthen their relationship.

TARGET:

General:

To provide education in farm business and family relationships. Strengthening these skills enables farm families to cope with daily tasks - improve their lives and farms.

Specific

In this second seminar "Building Better Working Relationships Between Farm Family Members", topics ranged from:

- putting personal feelings and family conflicts into perspective between farm family members
- identifying and understanding human relationships necessary for a successful family farming operation
- learning to handle the personal problem areas in a family farm
- improving communications between farm family members. Avoiding the common mistakes and stress that lead to Farm Family conflicts

SPONSORING GROUPS:

- Winnipeg-Interlake Regionl Women's Institute

CONTACT PERSON:

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Home Economist
Manitoba Agriculture
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PROJECT NAME: Natural Air Grain Drying Software

PROJECT NUMBER: 32103

DURATION: Project completed

FUNDING: $28,300 (Fed.); $8,765 (Prov.)

LOCATION: Department of Agricultural Engineering, Winnipeg

BACKGROUND:

The use of natural air for the drying of grains and oilseeds has become very popular in Manitoba during the last five years. There are many advantages to natural air drying. Further refinement of a computer simulation program is required to make this system available to a greater number of farmers in Manitoba.

TARGET:

To develop and test computer software to permit the calculation of minimum drying times and minimum airflows to achieve specified moisture levels.

SPONSORING GROUPS:

Agriculture Development Branch
Agriculture Canada
Manitoba Agriculture
Department of Agricultural Engineering,
University of Manitoba

CONTACT PERSON:

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Agriculture Development Branch
Agriculture Canada
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(204) 983-3891

O.H. Friesen
Technical Services & Training
Manitoba Agriculture
911 - 401 York Avenue
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PROJECT NAME: Fertilizer Planning Module

PROJECT NUMBER: 32104

DURATION: One year.

FUNDING: $49,000

LOCATION: Solomon Sinclair Farm Management Institute
University of Manitoba

BACKGROUND: Fertilizer expenditures constitute about 15 percent of total operating expenses for Manitoba Farming. Increased fertilizer prices in the past decade have created farm net income pressures. A producer must be equipped to make the best planning decisions in respect to fertilizer, soil, crop and market outlook relationship. This project is designed to develop new software that will assist producers, extension specialists and fertilizer dealers to plan for the most cost-effective use of fertilizers on an individual farm.

TARGET:

1) Improve the information base available to producers with respect to fertilizer, soil and crop relationships.

2) Develop a Fertilizer Planning Module for use by producers and commercial fertilizer outlets.

SPONSORING GROUPS:

Agriculture Canada
Manitoba Agriculture
University of Manitoba

CONTACT PERSON:

Dr. Daryl Kraft, Director
Solomon Sinclair Farm Management Institute
University of Manitoba
Winnipeg, Manitoba
R3T 2N2

(204) 474-8714

PROJECT NAME: Financial Reporting and Planning Module

PROJECT NUMBER: 32105

DURATION: Two (2) years

FUNDING: Total: $71,000 - Provincial $50,000
- Federal $21,000

LOCATION: Solomon Sinclair Farm Management Institute
University of Manitoba

BACKGROUND:

Canfarm, a computerized farm accounting and budgeting system was the state of the art over ten years ago. Computer technology has caused the Canfarm software to become obsolete. At the same time, the need for up to date farm finance management software is becoming more urgent.

The project is designed for the development of a computer program which allows a farmer to determine the financial position of his farm business on an ongoing basis.

TARGET:

The evaluation of the program will be done by user testing, as the different phases of the project are completed.

SPONSORING GROUPS:

Agriculture Canada
Manitoba Agriculture
University of Manitoba

CONTACT PERSON:

Daryl Kraft, Director
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PROJECT NAME: Video Agricultural Information Library

PROJECT NUMBER: 32201

DURATION: Two years

FUNDING: $41,100 (Provincial)

LOCATIONS: Dauphin, Minnedosa, Carman, Beausejour and Teulon, Manitoba

BACKGROUND: A dramatic increase in the number of video tape players on Manitoba farms prompted this project, that is designed to supply audio visual educational material to farm families in a VHS video format. The current project involves five libraries, all located in ag rep offices. A stock of tapes is provided for farmer home viewing.

Video tapes provide a practical method of supplying audio visual materials for individual study and use. The two year pilot project will help determine the long term plan for video use in Manitoba Agriculture's extension program.

TARGET:

1) Major target - all farm families in the involved ag rep districts.

2) Secondary target - extension staff who have the video materials available for general extension use.

On-going evaluation of the project will be facilitated through the use of evaluation cards in each video case, to be completed by the user. This and other feedback will be closely monitored to gain the maximum information from the two year operation.

SPONSORING GROUPS:

Manitoba Agriculture

CONTACT PERSON:

Vern McNair
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Communications Branch
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Winnipeg, Manitoba
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PROJECT NAME: Farm Stress Test

PROJECT NUMBER: 32209

DURATION: Project completed

TOTAL FUNDING: $17,000 (Prov.)
$ 8,000 (Fed.)

LOCATION: Produced primarily for use in rural Manitoba

BACKGROUND: The objective was to produce a broadcast quality half hour video tape and participant workbook which would respond to the high levels of stress being faced by Manitoba farm families.

The program and workbook demonstrated common high stress farm situations, enabled participants to take an inventory of their stressors and illustrated effective ways of coping with stress.

Video was aired several times on Manitoba Educational Television and was made available for use through agricultural representative offices and a number of other organizations.

The workbook "The Human Harvest: Changing Farm Stress to Family Success" was distributed widely for use by individuals, groups and organizations. In excess of 8,000 copies were produced under the Project with additional printing in another province.

SPONSORING GROUPS: Manitoba Agriculture
Agriculture Canada
Manitoba Education

CONTACT PERSONS:

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PROJECT NAME: Financial Planning System for Manitoba Farmers

PROJECT NUMBER: 33201

DURATION: One year.

FUNDING: $10,000 (Federal)

LOCATION: Solomon Sinclair Farm Management Institute
University of Manitoba

BACKGROUND: A number of government organizations are assisting farmers to assess and understand their financial difficulties. Monitoring the financial affairs of a farm business is an integral part of management. The project will evaluate computer application to all phases of the management cycle, namely planning, controlling, reporting and review.

TARGET :

1) Meet with experts in farm finance and accounting from June 20 - July 11, 1987.

2) Prepare and distribute draft report August 11, 1987.

3) Review comments and prepare final report September 12, 1987.

SPONSORING GROUPS:

Agriculture Canada
Manitoba Agriculture
University of Manitoba

CONTACT PERSON:

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University of Manitoba
Winnipeg, Manitoba
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D. Bowen
Support Information Systems Incorporated
669 Pembina Highway
Winnipeg, Manitoba
R3M 2L6

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PROJECT NAME: Solomon Sinclair Farm Management Institute

PROJECT NUMBER: 33203

DURATION: Five (5) years

FUNDING: $1,035,050 ($242,800 Federal)
($741,000 Industry)
($ 51,250 U of M)

LOCATION: Department of Agricultural Economics
University of Manitoba

BACKGROUND: The primary objective of the SSFMI is to promote the development of farm management skills. The Institute will provide an immediate contribution problem identification and methodology for problem solution. It will be a valuable centre of excellence for researchers, graduate students and extension staff willing to become involved in developing new tools and making this knowledge available to the end user - the producer.

TARGET:

1) The Institute will develop an instant access library containing information on technology relevant to Manitoba agriculture.

2) Evaluate computer software systems and coordinate communication between various users and suppliers of computer software and data.

3) The SSFMI will coordinate and sponsor educational activities as they relate to farm management.

SPONSORING GROUPS:

Agriculture Canada
Agri-business firms
Manitoba Agriculture
University of Manitoba

CONTACT PERSON:

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Department of Agricultural Economics
University of Manitoba
Winnipeg, Manitoba
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(204) 474-8714

PROJECT NAME: Manitoba Hog Industry Study

PROJECT NUMBER: 41101

DURATION: One year.

FUNDING: $14,000 (Federal)

LOCATION: University of Manitoba

BACKGROUND:

Manitoba's pork industry holds much promise for the future if the sector continues to grow as fast as it has in the past five years. Continued growth is predicted on increased demand, in the domestic and international market. The object of this project is to study and measure factors influencing the demand for Manitoba pork.

TARGET:

1) Initiate a structural description of the Manitoba hog sector.

2) Develop conceptual model.

3) Policy simulation and completion of final report.

SPONSORING GROUPS:

Agriculture Canada
Manitoba Agriculture
University of Manitoba

CONTACT PERSON:

Al Matheson
Agriculture Development Branch
Agriculture Canada
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Winnipeg, Manitoba
R3B 2B3

(204) 983-3891

PROJECT NAME: Public Information - Canada

PROJECT NUMBER: 42101

DURATION: Five (5) years

FUNDING: $150,000 (Federal)

LOCATION: Winnipeg

BACKGROUND:

The Agri-Food Development Agreement, a subsidiary of the Canada - Manitoba Economic and Regional Development Agreement (ERDA) is designed to bring together a shared federal - provincial perspective on economic action in the agricultural sector. The success of the Agri-Food Agreement will depend entirely on the ultimate value to the residents of Manitoba of the various activities funded by the Agreement.

TARGET:

1) Acknowledge the role of Canada and Manitoba in regional economic development.

2) Create general awareness and enhance public understanding of the Agri-Food program.

3) Encourage general cooperation between the two levels of government in order to ensure that communications projects are implemented in an effective and efficient manner.

SPONSORING GROUPS:

Agriculture Canada

CONTACT PERSON:

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PROJECT NAME: PUBLIC AND TECHNICAL INFORMATION (MANITOBA)

PROJECT NUMBER: 42102

DURATION: May 30/84-Dec. 31/90 **TOTAL FUNDING:** $150,000

LOCATION: Manitoba

BACKGROUND: Public communication is an integral part of the Agri-Food Sub-Agreement under ERDA. Section 11.1 of the Sub-Agreement states, "The Parties agree to cooperate in planning, development and delivery of public information activities relating to this Agri-Food Development Agreement under the discretion of the Agreement Management Committee."

Action Plan

- -- Develop stationery for use in all Agri-Food communications activities, in accordance with the guidelines prescribed and agreed to by the Federal and Provincial Coordinators.
- -- Develop mailing lists for news releases, information bulletins, meeting notices, booklets, etc.
- -- Prepare news releases and/or technical information bulletins as events transpire and that would warrant publicity.
- -- Cooperate with and assist other agencies in planning, publicizing and presentation of news conferences, public meetings, workshops, seminars and other special events.
- -- Develop a format for the publication of all technical bulletins, in agreement with the Federal and Provincial Coordinators and with agencies involved in the Agri-Food projects.
- -- Collect technical information on projects as it becomes available and prepare in cooperation with project managers technical information newsletters, bulletins, factsheets, etc.

SPONSORING GROUP: Manitoba Agriculture

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PROJECT NAME: Agricultural Technology Information

PROJECT NUMBER: 42201

DURATION: Five (5) years

FUNDING: $150,000 (Federal)

LOCATION: Winnipeg

BACKGROUND:

The Agri-Food Development Agreement, a subsidiary of the Canada - Manitoba Economic and Regional Development Agreement (ERDA) has a large number of projects funded by the Agreement. These projects are expected to provide a substantial amount of technical information that has been developed for the benefit of Manitoba agriculture. The funding allocated to this project will be used in the production and distribution of technical information flowing from Agri-Food activities.

TARGET:

1) Assist, where required and requested, in the preparation, production and distribution of educational and informational material for use by extension agencies of Government and the Agri-Food sector.

2) Monitor the various projects carried out under the Agri-Food program in order to assess the value of the information being derived from each project.

SPONSORING GROUPS:

Agriculture Canada

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